Fiscal Year 1994

Budget Request to Congress

Submitted to the Committees on Appropriations
Congress of the United States

Smithsonian Institution

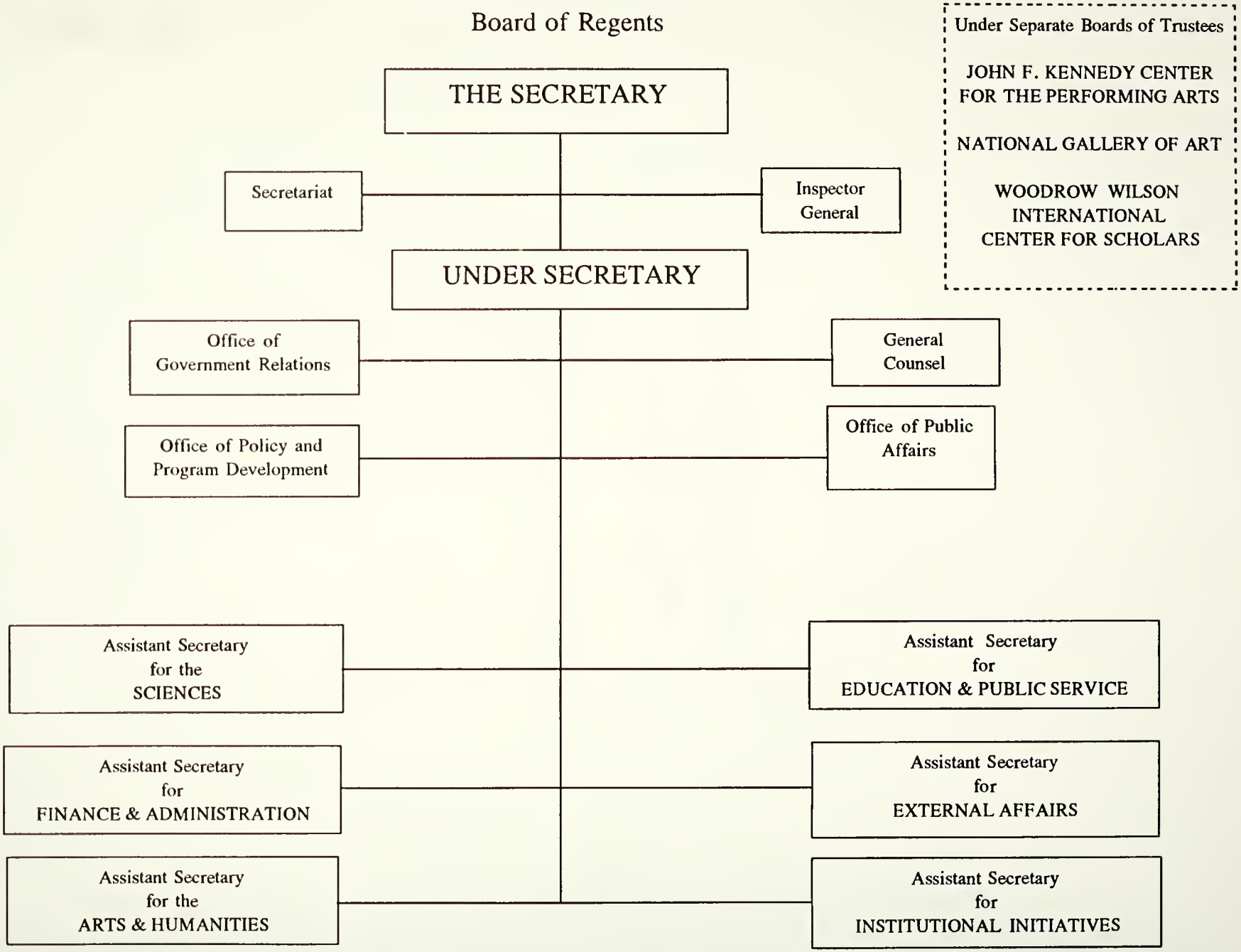
April 1993

SMITHSONIAN INSTITUTION

FISCAL YEAR 1994

Budget Request to Congress

SMITHSONIAN INSTITUTION
Board of Regents



November 1992

Smithsonian Institution
Bureaus and Offices

Assistant Secretary for the ARTS & HUMANITIES

Anacostia Museum
Archives of American Art
Arthur M. Sackler Gallery and
  Freer Gallery of Art
Cooper-Hewitt, National Museum of Design
Hirshhorn Museum and Sculpture Garden
Institutional Studies Office
National Air and Space Museum
National Museum of African Art
National Museum of American Art
  Renwick Gallery
National Museum of American History
  National Postal Museum
National Museum of the American Indian
National Portrait Gallery
Office of Exhibits Central
Office of Museum Programs
Office of Quincentenary Programs
Smithsonian Institution Traveling
  Exhibition Service

Assistant Secretary for FINANCE & ADMINISTRATION

Business Management Office
Office of the Comptroller
Office of Contracting and Property Management
Office of Equal Employment and Minority Affairs
Office of Facilities Services
  Office of Architectural History and Historic
    Preservation
  Office of Design and Construction
  Office of Environmental Management and Safety
  Office of Plant Services
  Office of Protection Services
Office of Financial and Management Analysis
Office of Human Resources
Office of Information Resource Management
Office of Planning and Budget
Office of Printing and Photographic Services
Office of Risk Management
Office of Sponsored Projects
Office of the Treasurer
Ombudsman
Travel Services Office

Assistant Secretary for the SCIENCES

Conservation Analytical Laboratory
National Museum of Natural History
  Museum Support Center
National Zoological Park
Office of Fellowships and Grants
Office of the Registrar
Smithsonian Astrophysical Observatory
Smithsonian Environmental Research
  Center
Smithsonian Institution Archives
Smithsonian Institution Libraries
Smithsonian Tropical Research Institute

Assistant Secretary for EDUCATION & PUBLIC SERVICE

Center for Folklife Programs and
  Cultural Studies
National Science Resources Center
Office of Elementary and Secondary
  Education

Assistant Secretary for EXTERNAL AFFAIRS

Office of International Relations
Office of Special Events and Conference
  Services
Office of Telecommunications
Smithsonian Associate Programs
  National Program
  Resident Program
Smithsonian Institution Press
Smithsonian Magazine
Air & Space Magazine
Visitor Information and Associates'
  Reception Center

Assistant Secretary for INSTITUTIONAL INITIATIVES

National Campaign for the National
  Museum of the American Indian
Office of Development

November 1992

SMITHSONIAN INSTITUTION
FISCAL YEAR 1994 BUDGET REQUEST TO CONGRESS

Table of Contents

Page

Introduction i

Salaries and Expenses

Summary Tables 1
Mandatory Costs Increases 5
Renewal/Acquisition Program 15

Sciences

Office of the Assistant Secretary for the Sciences 17
Smithsonian Astrophysical Observatory 21
Smithsonian Tropical Research Institute 25
Smithsonian Environmental Research Center 29
National Zoological Park 32
Smithsonian Institution Archives 37
Smithsonian Institution Libraries 40
International Environmental Science Program 44
Major Scientific Instrumentation 48
National Museum of Natural History/Museum of Man 54
Conservation Analytical Laboratory 59
Museum Support Center 63

Arts and Humanities

Office of the Assistant Secretary for the Arts & Humanities 67
National Air and Space Museum 72
National Museum of American History 77
National Museum of the American Indian 82
National Museum of American Art 88
National Portrait Gallery 92
Hirshhorn Museum and Sculpture Garden 96
Arthur M. Sackler Gallery/Freer Gallery of Art 99
Archives of American Art 105
Cooper-Hewitt Museum 108
National Museum of African Art 112
Anacostia Museum 116
Office of Exhibits Central 119
Smithsonian Institution Traveling Exhibition Service 121

Page

Public Service and External Affairs

Office of the Assistant Secretary for Education & Public Service 125
Center for Folklife Programs and Cultural Studies 128
Academic and Educational Programs 132
Office of the Assistant Secretary for External Affairs 136
Smithsonian Institution Press 142

International Center 145

Administration 151

Facilities Services

Office of Design and Construction 159
Office of Protection Services 162
Office of Plant Services 165

Facilities Planning, Renovation, Restoration, and Construction

Construction and Improvements, National Zoological Park 169

Repair and Restoration of Buildings 173
--Major Capital Renewal 175
--Repairs, Restoration, and Code Compliance 177

Construction 183
--National Museum of the American Indian 183
--General Construction Planning 186
--Minor Construction, Alterations and Modifications 186

Appendix
Visitors to the Smithsonian Institution, FY 1988 - FY 1992 193
Special Foreign Currency Program 194
Federal Expenditures for Consulting Services 197
Smithsonian Institution Authorization Citations 198
Adjustment to FY 1993 Appropriation 206

SMITHSONIAN INSTITUTION
FY 1994 BUDGET REQUEST
($000's)

APPROPRIATION ACCOUNT	FY 1993 APPROPRIATION	FY 1994 REQUEST
Salaries and Expenses	$295,560	$299,649
Construction	16,687	10,400
Zoo Construction	7,833	5,400
Repair and Restoration	24,193	24,000
TOTAL	$344,273	$339,449

This Request to Congress differs from past requests submitted by the Smithsonian; the upcoming fiscal year differs from other fiscal years faced by the Smithsonian; and the choices the Smithsonian is making differ from the choices it has made in the past.

During the spring of 1992, as the Congressional budget hearings were in progress, it became increasingly clear that the Institution, like many for-profit, not-for-profit, and government organizations throughout the United States, was entering into a period that would require difficult decisions. While private industry has typically responded to changing market conditions by expanding and contracting, the nonprofit sector, skilled at expansion, has little experience, and virtually no tools, to undertake contraction.

The Smithsonian has enjoyed unparalleled growth since the end of World War II. In scarcely 40 years, as the Secretary noted during testimony before the House Subcommittee on Appropriations in February 1993, this Institution has grown dramatically, from a place in 1946 primarily for scientists and scholars, not the public, to one of the primary attractions in the Nation's Capital for America's families. In these intervening years, the Smithsonian's special partnership with the Federal government and private donors has fostered its cultural and scientific aspirations and allowed it to grow into an enormously diverse resource for the Nation.

In 1946, annual public visitation to the Smithsonian's four buildings on the Mall totaled approximately 2 million people. By 1955 that number had grown to 3.9 million; by 1976, to 17 million; and by 1990, to 25 million. Today, the public can visit 9 Smithsonian museums on the Mall and 5 sites elsewhere in Washington. Among the top ten most frequently cited places to visit in the District of Columbia, four are Smithsonian sites; the top two are Smithsonian sites. At the same time, the Smithsonian reaches far beyond the confines of the Capital. The results of its research, conducted at sites around the world, are shared throughout the international scientific community and are helping shape the survival plans for the planet. For the price of an annual membership, the Smithsonian magazine, enters over 2 million households

and is read by 9 million people every year. SITES exhibits are seen by 11 million Americans annually through some hundred exhibitions at any given time, located in large and small museums, schools, libraries, municipal and other public spaces in all fifty states--for a cost of approximately $0.30 - 0.35/person. All of this for a grand total annually of slightly more than $600 million from all sources ($332 million from Federal sources), a tiny percent of the total Federal budget for FY 1992; no more than the annual budget of many flagship state universities.

The Smithsonian community can point with pride to the results of the application of its resources--to the quality and depth of its research, the quality and range of its collections, and the quality and relevance of its presentations through exhibitions and other forms of outreach. Recently, however, constraints on all its sources of income, stemming from the sluggish national economy, have forced it to seek financial equilibrium by joining the restructuring efforts that have already swept private industry and much of the not-for-profit world.

The Smithsonian has been forced to acknowledge that continued growth and strength in the future will require tradeoffs and wise choices through careful assessment of priorities. Toward that end, in the summer of 1992, the Institution undertook a restructuring process. As indicated to Congress in its appeal to the Conference Committee in September of 1992, the Smithsonian is engaged in a restructuring effort, and requires flexibility to begin making choices, according to its highest priorities, among equally appealing and valid alternatives. Only by gaining financial equilibrium in both its Federal and Trust budgets, undertaking strategic financial planning, focusing programmatic efforts tightly, and providing adequate supporting infrastructure can the Institution move confidently and decisively through this difficult period and position itself for the next century. Within the framework of its priorities, in-depth discussions and reallocation decisions have been underway. These priorities are: the care and conservation of the collections and facilities; the retention of a vibrant, broadly appealing exhibition program; the maintenance of momentum in major research programs where the Institution has a strong tradition and comparative advantage; the provision of an adequate administrative and service base; and the retention of key outreach programs to broaden audiences and to contribute to an understanding of global change.

Despite these efforts, the Smithsonian is not without needs. Increases in mandatory costs continue. Unlike most Federally funded agencies, it must assume the costs of rent, utilities, maintenance and renewal of facilities. The need to protect and secure the National Collections consumes 10 percent of its Salaries and Expenses budget; the need to provide a safe environment for personnel and the general public 364 days a year is a cost that rises steadily; the need to make the collections accessible to a broader audience is a looming cost yet to be addressed fully. In addition, the Smithsonian is not a granting agency--it does not administer programs that can be resized easily. At the same time, its primary investment must be in human resources--the talented and committed men and women who undertake research, care for and articulate the richness of the National Collections -- the professionals, the technicians, and the specialists, including plant and security personnel, who support them.

In many cases, the Smithsonian's administrative structures have not grown quickly enough in size or sophistication to keep pace with the requirements of its programs. The catch-up process has not always been systematic. Modernizing both structure and systems in the face of downsizing will require agility and closer coordination, teamwork, and more effective application of technology to reduce dependence on manpower and repetitive manual processes.

The Smithsonian must have a stable infrastructure provided by a stable base of funding to address ongoing, recurring needs, e.g., facilities renewal; replacement of research equipment; enhancements of computing/information resources, including collections management; and major scientific instrumentation for specialized requirements not available "off the shelf." As the costs for these requirements escalate, the Institution must rely on the Office of Management and Budget and the Congress to provide assistance in this areas. While the Smithsonian will look to more focused programs, and improved administrative processes, it will also seek more creative means of providing for major endeavors, including public/private partnerships, enhanced fund-raising efforts, and joint ventures for facilities and unique projects.

On September 4, 1992, the Smithsonian requested that the chairs of the Senate and House subcommittees on Appropriations provide sufficient flexibility in the FY 1993 process to proceed with restructuring and is grateful for the support given that request. In February of 1993, the Institution returned to the subcommittee chairs with a request to reprogram approximately 5 percent of its total FY 1993 Salaries and Expenses appropriation as the first phase of the restructuring plan. With their approval the committees have confirmed the need for the Institution to accomplish its restructuring goals over more than one fiscal year.

Looking toward the FY 1994 request, the Institution wishes to continue its orderly restructuring efforts and minimize disruption that could come from responding quickly to funding decisions that might require an ad hoc process to reduce the workforce. The Smithsonian hopes to provide the same outcome--a leaner workforce applied to the highest priorities of the Institution -- through its restructuring efforts. But it will need time for phase two to unfold in a logical and informed manner. A series of studies underway is designed to inform that next phase. In particular, the position management studies will assist in planning the transition to a different workforce for the future--more focused, more diverse, more technologically sophisticated.

The Smithsonian's FY 1994 budget request has been shaped by the priorities for the Nation. Many of the Smithsonian's programs, especially as they are being reshaped in its ongoing restructuring efforts, will be both congruent with and complementary to the vision for the Nation. In order to work within the current constrained environment and to minimize the disruptions to the restructuring process underway, the Institution examined carefully the schedules for all its construction projects and determined that it could absorb the cost of personnel reductions by limiting the requests in the construction accounts without jeopardizing any projects. The Smithsonian proposes no new programmatic initiatives or enhancements and has covered only those costs that are mandatory and those that will ensure the opening of the National Museum of the American Indian (NMAI) George Gustav Heye Center at the

Alexander Hamilton U.S. Custom House in New York in the fall of 1994 and the continuation of the planning and design for the NMAI Mall and Suitland facilities. The capital improvements requests include $24 million for Repair and Restoration, $5.4 million to continue the National Zoological Park Master Plan at Rock Creek and Repair and Restoration work at Rock Creek and Front Royal, Virginia; $6.2 million for design and site preparation for the NMAI Cultural Resources Center at Suitland, Maryland and $4 million for alternations and modifications to facilities throughout the Institution.

Changes to Presentation of the FY 1994 Request to Congress

In the winter of 1992, Congress reviewed and approved the first phase of a reorganization plan for the Smithsonian. In continuing that management effort, the Institution engaged in a series of discussions and reviews throughout 1992 that led to Phase I of the Restructuring Plan, approved in March of 1993 by Congress in the form of a reprogramming request. The timing of the approval did not allow for changes to be made to the FY 1994 Request to reflect the organizational impact of the Restructuring Plan. Although resource reallocations have been reflected, changes have not been made to the line-item order. Descriptions for those programs or offices that have been moved, merged, or dissolved remain in this document in the same location as presented in the FY 1993 Request, although references to the changes are noted.

In addition, the Restructuring Plan called for the creation of two Institution-wide funds, described on page 15, to support highest priority needs for research equipment and information management support, with special focus on the information needs for collections management. In time the Institution will seek to increase these funds to provide for systematic replacement and acquisition of these resources.

Last, the Restructuring Plan provides for the permanent reallocation of funds from the Office of Plant Services (OPlantS) to the bureaus and offices. These funds will be reallocated during FY 1993 based primarily on an analysis of the past three years of actual usage of OPlantS services for support of both normal maintenance and exhibitions.

Nonappropriated Sources of Funding

In addition to support provided by Federal appropriations, the Institution receives nonappropriated funds to expand and enrich its programs. The Institution presents nonappropriated fund activities (Trust funds) along with the Federal budget request to provide an overview of all uses of funds for each Smithsonian bureau. The estimates for Trust funds are subject to the uncertainty of donations, grants, and contracts; fluctuations in visitor attendance; and the volatility of the economy, which directly affects restaurant, mail order, and shop revenues; Associates' memberships; and other auxiliary activities. The Institution's gross operating revenue, less the expenses of the auxiliary activities, represents the net operating revenue available for programmatic and other worthwhile purposes.

The Institution realized gross Trust fund revenues for FY 1992, excluding Government grants and contracts, of $249 million, an increase of $16 million compared to FY 1991. Realized net income for FY 1992 of $76 million (which includes $40 million for restricted purposes) increased by $16 million over FY 1991. Restricted purpose funds recognized an increase of $17 million from FY 1991 to FY 1992, while net unrestricted Trust funds declined $1 million to $36 million. Lower returns on investments are primarily attributable to the decrease in unrestricted income, the result of the low interest rates and the sluggish economy.

The FY 1993 Trust budget constitutes approximately 25 percent of all net operating revenues for the Smithsonian, which include grants and contracts received from Government agencies. The Smithsonian expects Government grants and contracts will total roughly $36 million in FY 1993. Based on current projections for FY 1993, gross Trust fund revenues, excluding Government grants and contracts, will be $261 million with net income of approximately $65 million. Restricted purpose funds are estimated at $30 million, a decrease of $10 million from FY 1992. Net unrestricted Trust fund resources reflect a projected decline of an additional $1 million from FY 1992 to $35 million.

The Trust funds include unrestricted funds, restricted funds, and Government grants and contracts. The Institution applies them in the following manner:

UNRESTRICTED FUNDS:

General - The sources of general unrestricted funds are investment income; unrestricted endowment income; net proceeds from the museum shops, mail order, and food service concessions; sales of Smithsonian books, records, and other products based on designs and objects in the collections; the Smithsonian Associate's programs (including the Smithsonian and Air and Space magazines); and overhead recovery on Government grants and contracts the Smithsonian receives. Overhead recovery is the principal source of Trust support for central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, procurement, and budget. General funds also support various activities, such as the Cooper-Hewitt Museum, Center for Folklife Programs and Cultural Studies, Office

of Development, Office of Telecommunications, Smithsonian Tropical Research Institute, Visitor Information and Associates' Reception Center, and a variety of Institutional and bureau-based programs. The Board of Regents approves these allotments.

Special Purpose - These funds arise from revenue-producing activities operated by various bureaus and offices and transfers of General funds. The two largest of these activities are the Theater/Planetarium operation of the National Air and Space Museum and the exhibit rental activity of the Institution's Traveling Exhibition Service. Special Purpose funds also include miscellaneous revenues from the sale of posters, exhibit brochures, and publications; tuition reimbursement from universities; the museums' share of sales in the restaurant and museum shops; and membership and admission fees.

In FY 1979, the Board of Regents approved the annual transfer of General funds to Special Purpose funds for certain programs previously financed through Federal appropriations. These include the Institution's various fellowship programs (FY 1993 allotments of $1.97 million). The Institution also transfers General funds to make awards under its Collections Acquisition, Scholarly Studies, and Educational Outreach programs. The FY 1993 budget provided a total of $2.852 million for these awards.

In FY 1993, $832,000 is available to purchase exceptional objects important to the collections. The Institution also designated $1.66 million for innovative scholarly research projects that by definition or because of scheduling requirements did not fit within the Federal budget process. These included multi-disciplinary research projects initiated by the Institution's research staff, sometimes in collaboration with scholars from other institutions. The Institution allocated the remaining $360,000 of the $2.852 million available for this program to conduct a wide range of educational outreach programs of benefit to the public, with special focus on diverse cultural audiences.

In FY 1985, the Board of Regents approved an annual Trust-fund allocation for the Special Exhibition Fund (SEF). The Institution supports exhibition programs with Federal funds and donations from individuals, foundations, and corporations as well as with the SEF. The Special Exhibition Fund, with $1.727 million in FY 1993, provides additional funds for temporary and permanent exhibitions proposed by Smithsonian bureaus that, regardless of scale, were outstanding in terms of their educational value to the public. The Fund gives special consideration to exhibitions that approach content in imaginative ways; that allow bureaus to explore new or expand current interpretive or exhibition techniques; that are worthy but, by their nature, unlikely to attract private funds; and that are likely to reach previously underserved audiences.

RESTRICTED FUNDS - Restricted Trust funds include gifts, grants, and endowments from individuals, foundations, organizations, and corporations that specify the use of the donation or bequest. Generally, these funds provide support for a particular exhibit or research project. The Freer endowment is the largest restricted endowment in the Institution. Under

the terms of the original gift and bequest, this fund is strictly limited to uses benefiting the Freer Gallery of Art.

GOVERNMENT GRANTS AND CONTRACTS - Various Government agencies and departments provide grants and contracts for special projects that only the Smithsonian can conduct because of its expertise in a particular area of science, history, art, or education and because of its ability to respond quickly to certain needs.

SMITHSONIAN INSTITUTION
SALARIES AND EXPENSES

Summary of FY 1994 Change

FY 1993 Appropriation	$295,560,000
FY 1994 Requested Change	
Mandatory Costs Increases	6,298,000
Program Increases/Decreases	(2,209,000)
FY 1994 Request	$299,649,000

SMITHSONIAN INSTITUTION

SALARIES AND EXPENSES

SUMMARY OF THE 1992 APPROPRIATION AND THE 1993 AND 1994 ESTIMATES

(Dollars in Thousands)

FTE = Full-Time Equivalent

PAGE #	UNIT	FY 1992 ACTUAL FTE	FY 1992 ACTUAL AMOUNT	FY 1993 BASE FTE	FY 1993 BASE APPROPRIATION *	FY 1994 ESTIMATE FTE	FY 1994 ESTIMATE AMOUNT	ANALYSIS OF CHANGE FTE	MANDATORY COSTS	PROGRAM
	SCIENCES									
17	Assistant Secretary for the Sciences	20	1,451	30	1,522	30	1,552	0	30	0
21	Smithsonian Astrophysical Observatory	120	12,996	129	13,708	129	14,263	0	555	0
25	Smithsonian Tropical Research Institute	138	6,785	161	7,499	161	7,631	0	132	0
29	Smithsonian Environmental Research Center	39	2,414	48	2,422	48	2,480	0	58	0
32	National Zoological Park	357	16,617	370	17,861	370	18,266	0	405	0
37	Smithsonian Institution Archives	15	706	20	919	20	932	0	13	0
40	Smithsonian Institution Libraries	99	5,997	109	6,555	109	6,619	0	64	0
44	International Environmental Science Program	16	901	15	760	15	768	0	8	0
48	Major Scientific Instrumentation	0	2,276	0	7,939	0	7,291	0	0	(648)
54	National Museum of Natural History	564	32,614	623	35,572	621	35,623	(2)	501	(450)
59	Conservation Analytical Laboratory	38	2,722	42	2,683	42	2,735	0	52	0
63	Museum Support Center	48	7,090	56	5,236	56	5,303	0	67	0
	Subtotal	1,454	92,569	1,603	102,676	1,601	103,463	(2)	1,885	(1,098)
	ARTS AND HUMANITIES									
67	Assistant Secretary for the Arts and Humanities	29	2,297	35	2,535	35	2,582	0	47	0
72	National Air and Space Museum	249	11,500	231	11,731	230	11,972	(1)	282	(41)
77	National Museum of American History	340	18,268	372	18,484	367	18,261	(5)	301	(524)
82	National Museum of the American Indian	75	8,193	147	11,422	177	11,502	30	80	0
88	National Museum of American Art	122	7,303	129	7,690	127	7,777	(2)	146	(59)
92	National Portrait Gallery	86	4,646	90	4,996	90	5,028	0	72	(40)
96	Hirshhorn Museum and Sculpture Garden	70	3,980	77	4,094	77	4,103	0	58	(49)
99	Arthur M. Sackler Gallery/Freer Gallery of Art	72	6,003	77	5,186	77	5,249	0	63	0
105	Archives of American Art	20	1,236	24	1,346	24	1,373	0	27	0
108	Cooper-Hewitt Museum	36	2,211	39	2,262	39	2,308	0	70	(24)
112	National Museum of African Art	51	3,723	58	3,951	58	3,995	0	44	0
116	Anacostia Museum	20	1,087	20	1,152	20	1,174	0	22	0
119	Office of Exhibits Central	45	2,093	46	2,245	46	2,283	0	38	0
121	Smithsonian Institution Traveling Exhibition Service	30	2,292	44	2,544	44	2,535	0	45	(54)
	Subtotal	1,245	74,832	1,389	79,638	1,411	80,142	22	1,295	(791)

SMITHSONIAN INSTITUTION

SALARIES AND EXPENSES

SUMMARY OF THE 1992 APPROPRIATION AND THE 1993 AND 1994 ESTIMATES

(Dollars in Thousands)

FTE= Full-Time Equivalent

PAGE #	UNIT	FY 1992 ACTUAL FTE	FY 1992 ACTUAL AMOUNT	FY 1993 BASE FTE	FY 1993 BASE APPROPRIATION *	FY 1994 ESTIMATE FTE	FY 1994 ESTIMATE AMOUNT	ANALYSIS OF CHANGE FTE	ANALYSIS OF CHANGE MANDATORY COSTS	ANALYSIS OF CHANGE PROGRAM
	PUBLIC SERVICE AND EXTERNAL AFFAIRS									
125	Assistant Secretary for Education and Public Service	5	384	6	410	6	415	0	5	0
128	Center for Folklife Programs and Cultural Studies	16	1,318	14	1,255	12	1,065	(2)	17	(207)
132	Academic and Educational Programs	12	775	13	777	13	777	0	15	(15)
136	Assistant Secretary for External Affairs	13	807	10	714	10	720	0	6	0
142	Smithsonian Institution Press	29	1,530	30	1,500	30	1,544	0	44	0
	Subtotal	75	4,814	73	4,656	71	4,521	(2)	87	(222)
145	INTERNATIONAL CENTER	15	847	12	822	10	747	(2)	8	(83)
151	ADMINISTRATION	347	26,628	390	26,828	390	27,352	0	539	(15)
	FACILITIES SERVICES									
159	Office of Design and Construction	50	3,245	50	3,477	50	3,547	0	70	0
162	Office of Protection Services	734	26,871	808	29,101	808	29,638	0	537	0
165	Office of Plant Services	454	45,293	492	46,026	492	47,903	0	1,877	0
	Subtotal	1,238	75,409	1,350	78,604	1,350	81,088	0	2,484	0
	RENEWAL/ACQUISITION PROGRAM									
15	Research Equipment	0	0	0	1,186	0	1,186	0	0	0
15	Information Resources	0	0	0	1,150	0	1,150	0	0	0
	Government-wide Workyear Reduction					(81)				
	GRAND TOTAL	4,374	275,099	4,817 **	295,560	4,752	299,649	16	6,298	(2,209)

* Reflects reorganizations and permanent reprogrammings. (See crosswalk in the Appendix section.)

** OMB full-time equivalent ceiling is 4,825 for FY 1993.

FY 1994 MANDATORY COSTS INCREASES

The Smithsonian Institution seeks funds to pay costs that are beyond its control to manage. These costs result from established practices in regulating wages, insurance premiums, utilities, rent, and the effects of inflation. The Institution requests $6,298,000 for the following mandatory costs:

Salary and Related Costs	
Necessary Pay:	
--Annualization of FY 1993 Legislated Pay Raise	$1,920,000
--Health Insurance (Increase in Premiums)	953,000
--Federal Employees' Retirement System (FERS)	1,533,000
Other:	
--Workers' Compensation	39,000
--Unemployment Compensation	108,000
Total, Salary and Related Costs	$4,553,000
Utilities, Communications, and Postage	1,380,000
Smithsonian Astrophysical Observatory Rent	365,000
Grand Total, Mandatory Costs Increases	$6,298,000

SALARY AND RELATED COSTS - The Institution requests a net amount of $4,553,000 for the projected higher salary and benefits costs in FY 1994 for FY 1993 staff as follows:

Annualization of FY 1993 Legislated Pay Raise - The Smithsonian has included an amount of $1,920,000 in its FY 1994 request to annualize the costs of the 3.7 percent January 1993 legislated pay raise. In accordance with the pay plan established by the President (Executive Order 12826, December 30, 1992) under Section 5305 of Title 5, United States Code, annual salaries for Smithsonian General Schedule, Merit Pay, and Executive-level employees increased on January 10, 1993. The Institution received an increase in its FY 1993 Appropriation to cover 50 percent of the FY 1993 cost of this raise; the remaining 50 percent is being met through permanent reprogramming as part of the Institution's Restructuring Plan.

Health Insurance - For FY 1994, the Institution requests $953,000 to cover the rising cost of health insurance premiums for employees. The Smithsonian's FY 1993 base is $9,494,000. The requested increase includes the funds required to annualize the projected FY 1993 cost

increase ($224,000 for one-quarter of the year) and to cover an estimated FY 1994 increase of ten percent ($729,000 for three-quarters of the year).

Federal Employees' Retirement System (FERS) - The Smithsonian requests an increase of $1,533,000 to cover the increased benefit costs associated with the higher percentage of FERS participants comprising the Federal workforce. Earlier this year the Institution calculated the increased cost of FERS over the existing Civil Service Retirement System (CSRS) for all on-board FERS employees. For FY 1994, the projected inception-to-date cost increase associated with former CSRS positions that are now occupied by staff in the FERS system amounts to $8,746,000. To date, the Institution has received $7,213,000 in its Federal appropriation to fund this shift, leaving a shortfall of $1,533,000. Additional funds will be required in the future, as the composition of the Institution's Federal workforce continues to shift to FERS participation (versus CSRS) over time.

Workers' Compensation - The Smithsonian requests an increase of $39,000 as specified in the provisions of Section 8147(b) of Title 5, United States Code, as amended on April 21, 1976, by Public Law 94-273. This law provides for payments to be made to employees for injuries and to their families in cases where work accidents result in employee death. These payments are determined and made by the U.S. Department of Labor's Employment Standards Administration, which subsequently bills agencies for costs incurred for their employees. Despite the Institution's emphasis on the Accident Safety Program administered by the Office of Environmental Management and Safety (OEMS), which provides employee training in safety awareness and promotes the identification and elimination of potential hazards in the workplace, there has been an increase in employee compensation costs. The FY 1994 bill for the Institution's Federal portion, ($1,493,000) covers the actual expenses incurred for the period July 1, 1991, through June 30, 1992. With an amount of $1,454,000 in its FY 1993 base for workers' compensation, the Institution requests an additional $39,000.

Unemployment Compensation - The Institution requests an increase of $108,000 for the projected higher unemployment compensation costs estimated for FY 1994. The Smithsonian reflected a base deficiency in this account for FY 1992 of $106,000 (actual costs of $249,000 versus a base of $143,000), and projects a deficit in the current year. The FY 1993 base of $143,000 plus that requested increase will provide $251,000 for unemployment compensation in FY 1994.

UTILITIES, COMMUNICATIONS, AND POSTAGE - An FY 1993 Federal base of $19,963,000 and anticipated reimbursements of $950,000 (total of $20,913,000) are available to fund the costs of electricity, steam, gas, fuel oil, water, sewer, communications, and postage for nearly all Institution facilities. The Smithsonian requires an increase of $1,380,000 in FY 1994 to cover anticipated costs.

The Smithsonian's projections of future utilities costs consider a variety of factors. These include:

- comparative data on actual energy consumption in previous years for each facility;
- adjustments for normal weather conditions for this geographic region based on information provided by the National Weather Service;
- actual and projected rates charged by utility companies;
- actual and projected reimbursements for utility costs from concessions, museum shops, and the Friends of the National Zoo;
- modifications to work and public spaces within facilities;
- continued energy conservation efforts in all Smithsonian buildings;
- improvements installed to heating, ventilating, and air conditioning systems and components throughout the physical plant;
- the design of new facilities;
- projected increases in consumption caused by expanded use of computers and other equipment throughout the Institution.

The following table shows the costs and base funds available to cover the components of the Utilities account from FY 1992 to FY 1994.

ANALYSIS OF UTILITIES AND COMMUNICATIONS COSTS
FY 1992 - FY 1994
($000's)

	FY 1992 ACTUAL	FY 1993 ESTIMATE	FY 1994 ESTIMATE
ELECTRICITY			
Use - Millions of KWH	116.8	121.2	121.2
Unit Cost - Average per KWH	0.069	0.069	0.069
Cost - $000's	$8,046	$8,363	$8,363
FY 1994 Estimated Cost			$8,363
FY 1993 Base*			$7,071
Base Shortage, Electricity			$ 1,292

STEAM			
Use - Millions of Pounds	190.9	193.6	193.6
Unit Cost - Avg. per 1,000 lbs.	15.50	15.50	15.50
Cost - $000's	$2,959	$3,000	$3,000
FY 1994 Estimated Cost			$3,000
FY 1993 Base			$3,500
Base Surplus, Steam			$ 500
GAS			
Use - Millions of Cubic Ft.	1.493	1.541	1.541
Unit Cost - Avg. per Cubic Ft.	.6490	.6490	.6490
Cost - $000's	$ 969	$1,000	$1,000
FY 1994 Estimated Cost			$1,000
FY 1993 Base			$1,000
Base Shortage, Gas			$ 0
FUEL OIL/WATER			
Cost - $000's	$ 307	$ 350	$ 400
FY 1994 Estimated Cost			$ 400
FY 1993 Base			$ 400
Base Shortage Fuel Oil/Water			$ 0
D.C. GOVT. WATER/SEWER			
Cost - $000's	$2,266	$1,542	$2,030
FY 1994 Estimated Cost			$2,030
FY 1993 Base			$1,542
Base Shortage, D.C. Water/Sewer			$ 488
COMMUNICATIONS			
Cost - $000's	$4,383	$4,500	$4,800
FY 1994 Estimated Cost			$4,800
FY 1993 Base			$4,800
Base Shortage, Communications			$ 0
POSTAGE			
Cost - $000's	$2,433	$2,600	$2,700
FY 1994 Estimated Cost			$2,700
FY 1993 Base			$2,600
Base Shortage, Postage			$ 100

TOTALS	FY 1994 Estimated Cost	$22,293
	FY 1993 Base	$20,913*
	FY 1994 Requested Increase	$ 1,380

* Reflects FY 1993 Federal base plus anticipated reimbursements in FY 1994 of $950,000.

Electricity - The largest single component of the Utilities account is electricity. The consumption total for FY 1992 reflects that 1992 was an unusually cool year compared to normal weather patterns in the Washington, D.C., area. The FY 1993 and FY 1994 estimates of electrical consumption reflect a return to the normal weather pattern for the region as well as general increases associated with automation efforts under way in all Smithsonian facilities and the upgrading of exhibit halls in the Museum of Natural History and the Museum of American History. The FY 1993 - FY 1994 rate estimate reflects the effect of the D.C. Gross Receipts Adjustment Tax, which is being passed on to consumers by the utility company. These factors will require an increase of $1,292,000 to cover the anticipated costs of electricity in FY 1994.

Steam - The FY 1994 estimate for steam reflects an anticipated stabilization of consumption coupled with the continuation of a stable rate that has existed for a number of years. Based upon these factors, the Institution expects that FY 1994 costs will produce a base surplus of $500,000.

Gas - The FY 1994 estimate reflects no increase in consumption, rate, or costs over the anticipated costs for FY 1993. With these stable conditions, base resources are expected to be sufficient to cover the anticipated costs for FY 1994.

Fuel Oil/Water - The FY 1994 estimate reflects consumption increases associated with the National Zoological Park facilities at Front Royal, Virginia, and the National Museum of the American Indian facilities in New York City, as well as expanded facilities at the Silver Hill Facility in Suitland, Maryland. Current base resources are sufficient to cover the estimated costs of fuel oil and water in FY 1994.

D.C. Government Water/Sewer - The FY 1993 and FY 1994 estimates are cost projections provided by the D.C. government and are based upon prior-year actual usage data. An increase of $488,000 is requested to cover the anticipated costs of D.C. government water/sewer for FY 1994.

Communications - By 1994, demands will continue for increased telephone and data communications services. In addition to normal telephone service cost increases, requests for access to such services as voice mail and electronic mail are expected to increase significantly. Increases in data communications traffic generated by access to the automation of personnel, financial, and procurement systems are also expected. Finally, costs associated with expanded

use of data communications to the Smithsonian Tropical Research Institute in Panama will require additional funding. Current base resources are sufficient to cover the expected communications costs increases for FY 1994.

Postage - Effective October 1, 1992, the United States Postal Service required the Institution to pay for its postage use based on counting each piece of mail sent rather than on the mail-sampling method that had been in use for years. The Institution expects this change in the way the annual cost of postage is determined to result in higher costs. Additionally, mail volume continues to increase in response to requests for services and information from the public. These factors more than offset savings anticipated from the closing of the International Exchange Service operation and will require an increase of $100,000 to pay for the Smithsonian's use of the United States Postal Service in FY 1994.

Energy Conservation - The Institution continues to monitor and limit all forms of energy consumption. An automated energy management system reduces peak energy demand by selectively shutting down equipment when necessary. This system, when fully installed, will monitor equipment in all buildings for fluctuations or malfunctions and alert staff to inspect for problems. Ongoing efforts also include:

- continuing the phased program of comprehensive building energy audits;
- renovating heating, ventilating, air conditioning, plumbing, and electrical systems;
- reducing lighting levels in work and nonpublic areas;
- installing more efficient lighting fixtures;
- operating heating and air conditioning systems at the minimum level necessary to prevent damage to the collections;
- curtailing electrical consumption during nonpublic hours;
- increasing attention to energy conservation when determining space use, space modifications, and the design of new facilities.

Through the use of the Facilities Management computer system, the Smithsonian will eventually gain closer control over building lighting systems. The system conserves electricity by turning lights on and off as use fluctuates. Automated lighting controls are now in place at the Air and Space Building, American History Building, Natural History Building, and Quadrangle Complex. The Smithsonian plans to install such a system in the American Art and Portrait Gallery Building by FY 1993 and in later years in other major buildings.

RENTAL SPACE - For FY 1994, the central rental account, included in the line-item for the Office of Plant Services, has sufficient base resources for rental expenses. This account

provides for the Federal portion of the rental expenses for program and administrative activities located in L'Enfant Plaza, the Smithsonian Institution Service Center at 1111 North Capitol Street, the research bureaus of the Archives of American Art in New York City and Boston, Massachusetts, and collection storage at the Fullerton Industrial Park in Springfield, Virginia. The amounts below reflect projected costs for rental space at these sites:

FEDERAL RENTAL PROGRAM
ADMINISTERED BY THE OFFICE OF PLANT SERVICES
FY 1992 - FY 1994
($000's)

	FY 1992 Actual Cost		FY 1993 Estimated Cost		FY 1994 Estimated Cost	
	Federal	Trust	Federal	Trust	Federal	Trust
L'Enfant Plaza	$1,721	$1,543	$1,975	$1,547	$2,036	1,328
North Capitol Street	1,431	154	1,501	169	1,600	184
Archives of American Art:						
- New York	133	--	137	--	146	--
- Boston	15	--	18	--	20	--
Fullerton	374	--	416	--	444	--
Total Costs	$3,674	$1,697	$4,047	$1,716	$4,246	$1,512
Base	3,656		4,246		4,246	
Surplus/(Deficit)	(18)		199		(0)	

The FY 1994 estimate for Federal rental costs for L'Enfant Plaza reflects annual cost increases specified in the lease agreement and takes into account the offsetting Trust fund contribution for shared administrative activities and office space occupied by the specific auxiliary activities on the Mall.

The projected rental expense for space at 1111 North Capital Street includes the cost increase associated with a negotiated extension of the current lease through September 1994 and a significant property tax increase. The allocation policy on administrative and programmatic space also governs the Federal/Trust apportionment of costs for this location.

The projected rental expense for the Archives of American Art represents funding requirements for the spaces occupied in New York City and Boston. The increase for the New York office reflects inflationary adjustments in the rental rate.

The projected rental expense for the Fullerton reflects the continuing cost of storage space for the Smithsonian Institution Archives and the National Museum of American History.

Current base resources are sufficient to cover the projected Federal share of the central rental costs of 4,246,000 in FY 1994.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY RENT - For FY 1994, the Smithsonian Astrophysical Observatory (SAO) seeks $30,300 to cover rent increases for its facilities located at 60 Garden Street in Cambridge, Massachusetts. In addition, SAO is seeking $67,900 for a necessary expansion of its facility located at 1815 Massachusetts Avenue in Cambridge. SAO is also seeking $266,800 for additional space in the Cambridge area to accommodate the expansion required for the AXAF Science Center. The total requested rent increases amount to $365,000.

60 Garden Street Property ($30,300) - For FY 1994, SAO seeks $30,300 to cover the impact of rent increases for the 60 Garden Street facility. SAO leases approximately 90,000 square feet of space from Harvard College Observatory (HCO). Rent is negotiated annually and is dependent on the actual costs of operating and maintaining the buildings during the previous year, adjusted for any carryover of costs from the previous year. HCO has raised the level of maintenance on its buildings as well as increased its contribution to the Maintenance Reserve Fund to a University prescribed level adequate for proper maintenance of the buildings in future years. For FY 1994, the HCO budgeted increase for these purposes will require the Federal share of SAO's rental costs to increase by $30,300.

1815 Massachusetts Avenue Property ($67,900) - SAO presently leases approximately 37,600 square feet of space at the Porter Exchange Building. By FY 1994, the Smithsonian expects to lease an additional 11,000 square feet at this facility to accommodate the expansion of support services and Trust research projects currently located at 60 Garden Street.

AXAF Science Center ($266,800) - To accommodate the requirements of the recently acquired NASA contract for the AXAF Science Center, SAO is seeking 30,000 square feet of space with annual rent costs estimated at $900,000. The Federal share (29.65 percent) of the rent increase attributable to the additional space requirements of the AXAF Science Center will amount to $266,800.

Smithsonian Institution
FY 1994
Necessary Pay Requirements
(dollars in thousands)

	Annualize FY 1993 Pay Raise	FERS	Health Insurance	Total Necessary Pay
Assistant Secretary for the Sciences	10	14	6	30
Smithsonian Astrophysical Observatory	82	83	25	190
Smithsonian Tropical Research Institute	51	49	32	132
Smithsonian Environmental Research Center	18	31	9	58
National Zoological Park	196	136	73	405
Smithsonian Institution Archives	6	3	4	13
Smithsonian Institution Libraries	42	0	22	64
International Environmental Science Program	5	0	3	8
National Museum of Natural History	258	120	123	501
Conservation Analytical Laboratory	21	23	8	52
Museum Support Center	16	40	11	67
Assistant Secretary for the Arts and Humanities	17	23	7	47
National Air and Space Museum	103	133	46	282
National Museum of American History	151	77	73	301
National Museum of the American Indian	51	0	29	80
National Museum of American Art	50	70	26	146
National Portrait Gallery	34	21	17	72
Hirshhorn Museum and Sculpture Garden	28	15	15	58
Arthur M. Sackler Gallery/Freer Gallery of Art	31	16	16	63
Archives of American Art	10	12	5	27
Cooper-Hewitt Museum	14	48	8	70
National Museum of African Art	23	10	11	44
Anacostia Museum	8	10	4	22
Office of Exhibits Central	18	11	9	38
Smithsonian Institution Traveling Exhibition Service	18	18	9	45
Assistant Secretary for Education and Public Service	4	0	1	5
Center for Folklife Programs and Cultural Studies	6	8	3	17
Academic and Educational Programs	6	6	3	15
Assistant Secretary for External Affairs	5	0	1	6
Smithsonian Institution Press	14	24	6	44
International Center	4	3	1	8
Administration	188	124	80	392
Office of Design and Construction	31	29	10	70
Office of Protection Services	229	148	160	537
Office of Plant Services	172	228	97	497
TOTAL	1,920	1,533	953	4,406

RENEWAL/ACQUISITION PROGRAM

Research Equipment

As part of Phase I of the Restructuring Plan, the Institution identified the need to replace, upgrade, or acquire new research equipment. In the early 80s Congress provided funds to stabilize and enhance the Smithsonian's scientific equipment base. Since that time, the value of those funds has eroded and much of that equipment has passed its useful life and/or has become obsolete. In some cases, new technologies have led to completely new, more sophisticated equipment. Just as the Institution recognized that its facilities needed constant repair and renovation, so it recognizes that its research equipment should be similarly renewed on a recurring basis. In the restructuring discussions this issue was of sufficient priority that reallocations were made to create a fund for a research equipment renewal/acquisition program. In the past month, all the research bureaus have completed comprehensive inventories of their equipment holdings, evaluated their condition, and established replacement or acquisition priorities and plans that will form the basis of their requests for support from the research equipment renewal fund. The art and history museums may also participate in this process for equipment that may support their research activities. An advisory group drawn from the bureaus will be established to recommend to central management the priorities as well as criteria for the annual distribution of these funds. In FY 1994, the Smithsonian is not seeking an increase beyond the $1.2 million redirected to this program from the Institution's base funds. Over time the Institution will size this fund, through a combination of internal reallocations and seeking of new appropriations, to provide a stable base to renew its research equipment in a rational and orderly manner.

Information Resources

As part of the Restructuring Plan, the Institution recognized the need to establish a fund to support, on an ongoing basis, its myriad and changing information resources needs. From mainframe support requirements for large administrative databases, to local area networks (LANs) for bureau support of collections management; from communications needs for access to external information bulletin boards and networks to sophisticated databases for specialized purposes, the world of technology is changing the way in which the Institution gathers and shares information. A pan-Institutional task force, structured to encourage input from all functional quarters, will have completed by summer's end a strategic plan for its information needs. In the restructuring discussions these needs were of sufficient priority that reallocations were made to create a fund to serve as an information resources renewal or acquisition program. Bureau initiated proposals for support from this fund are under development and will be awarded based on priorities and criteria identified by an Institution-wide advisory committee. In FY 1994, the Smithsonian is not seeking an increase beyond the $1.2 million redirected to this program from the Institution's base funds. Over time the Institution will size this fund, through a combination of internal reallocations and seeking of new appropriations, to provide a stable base to renew its information resources base in a rational and orderly manner.

SCIENCES

Assistant Secretary for the Sciences

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	20	1,451	10	725	-	1,947	-	473	2	343
FY 1993 Estimate	30	1,522	7	531	-	1,505	-	701	2	357
FY 1994 Estimate	30	1,552	7	531	-	1,505	-	629	2	363

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of the Assistant Secretary for the Sciences (OAS/S) facilitates, strengthens, and plans for the Smithsonian's worldwide scientific efforts and research support activities. The Office develops and implements Institution-wide policies that foster the creation and dissemination of high-quality research in the sciences and promote science as an essential endeavor that contributes to knowledge and addresses issues of pressing concern to society. The Office also seeks to build an excellent research staff that reflects the Nation's diverse heritage and the Institution's scholarly strengths, to foster interdisciplinary research and effective linkages between scholars within and outside of the Institution, and to encourage the integration of research results and research staff into the other areas of the Smithsonian, particularly exhibition, education, and public programs.

Included in this line-item are the Smithsonian Institution Scientific Diving Program, the Office of Fellowships and Grants, and the Office of the Registrar. As a result of the Institution's Restructuring Plan implemented in FY 1993, the Office of the Registrar will be merged with the Smithsonian Institution Archives.

The Smithsonian Institution Scientific Diving Program oversees the diving activities of the Smithsonian staff and related investigators, ensuring their safety and training in compliance with the Department of Labor's Occupational Safety and Health Administration (OSHA) regulations and the standards of the American Academy of Underwater Sciences. The Office of Fellowships and Grants (OFG) administers the Institution's programs of research grants, fellowships, and other scholarly appointments. The Office of the Registrar (OR) develops, oversees, and coordinates Smithsonian collections management policies to preserve and improve

access to the National Collections and assure their continued availability to present and future generations.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Office of the Assistant Secretary for the Sciences. The Institution requires $30,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM:

I. Office of the Assistant Secretary for the Sciences - The Office of the Assistant Secretary for the Sciences, in concert with the Secretary and other management staff, supervises the scientific activities of the Institution. The Office performs a wide range of functions: advises the Secretary and Under Secretary on major policy issues as a member of the Smithsonian's senior management team; coordinates programmatic and facilities planning for Smithsonian science activities by working closely with bureaus, offices, and programs; allocates Institutional research resources through the budget process (Federal and Trust) and through internal competitive funding programs; assesses the programmatic and administrative strengths of science bureaus, offices, and programs in order to set priorities and coordinate activities; evaluates scholarly staff through the hiring, review, and promotion process; provides leadership, communication, and support to the Smithsonian's scholarly community and research support offices; fosters Smithsonian ties with outside scholarly organizations and universities worldwide; promotes an appreciation of the importance of scientific research among the Smithsonian staff and outside constituencies, such as Congress, the Office of Management and Budget, major donors, and the media; and encourages the integration of Smithsonian research with other Smithsonian endeavors.

To provide leadership and support for program operations, regular communication is maintained with key staff of all bureaus, offices, and programs under the administration of the Assistant Secretary for the Sciences via meetings, phone contact, and exchange of memoranda and documents. The Office produces a bi-monthly newsletter and scholarly events calendar offering information on funding programs, proposal deadlines, research opportunities, and Smithsonian conferences, lectures, symposia, and public programs. This Office, which also oversees the Scientific Diving Program, coordinates scientific diving activities that support collection and the study of underwater subjects and environments. The Scientific Diving Program provides critical training and certification procedures for all Smithsonian divers (357 individuals authorized to dive since January 1990).

II. Office of Fellowships and Grants - The Office of Fellowships and Grants manages the Institution's centralized fellowship and internship programs, all other stipend appointments, and additional significant programs that support research by Smithsonian scholars and their collaborators.

Through these programs, students and scholars from throughout the world visit the Institution and use its varied resources. OFG administers approximately 900 appointments and

55 grants. In FY 1992, OFG awarded 81 pre- and postdoctoral fellowships through the Institution-wide program. Twenty-five of these recipients were foreign students and scholars from 15 countries. Under the Short-Term Visitor Program, 155 persons representing 35 countries came to the Institution. The Smithsonian Institution-University Programs in the Structure and Evolution of Terrestrial Ecosystems, funded by a grant from the Andrew W. Mellon Foundation, placed 20 researchers and students at the National Museum of Natural History and the Smithsonian Tropical Research Institute. In addition, Federal and Trust funds allocated to the bureaus supported 283 short- and long-term awards. The Office also administered internship stipend awards for 225 students in FY 1992.

OFG administers programs to increase minority participation in Smithsonian research disciplines and educational activities. Thirty-four students joined ongoing research and museum studies in the Minority Internship Program. The Native-American Awards Program selected 18 Native-American students and scholars to collaborate with the staff and work on Native-American resources and activities at the Institution.

Two grant programs provide scholarly support to Smithsonian professional staff. Twenty-eight proposals were funded in FY 1992. The Research Resources Program supports archival projects, and seven awards were made under this program.

III. Office of the Registrar - The Office of the Registrar (OR) permits diverse audiences access to the National Collections while designing systems to keep the collections safe. The Office supervises the management of 138 million objects and specimens and designs inventory and internal control procedures that provide accountability for Smithsonian collections. During FY 1992, OR revised the Institution's collections management policy directive, Office Memorandum 808, on collecting biological specimens and costs recovery for outgoing loans. OR coordinated the revision and development of collections management policies for the Cooper-Hewitt Museum, Anacostia Museum, and Smithsonian Institution Traveling Exhibition Service. The Office published "A Primer to Endangered Species Laws," which explains requirements for obtaining Federal permits for specimens or artifacts containing plant and animal parts or products protected by Endangered Species Laws. This year marked the sixth annual compilation of collections statistics, which offers data on acquisitions, deaccessioning, and loan activity throughout the Institution.

During FY 1992, the office initiated a project with the Office of Human Resources (OHR) and museum staff to revise the classification standard for Museum Specialists and Technicians (GS-1016). The standard, last published in 1961, has not kept pace with the increased technical complexities arising in the profession over the last thirty years. A new standard will be submitted for approval to the Office of Personnel Management (OPM) during 1993. As the leading participant in the International Council of Museums Documentation Committee, OR presented the latest findings of its worldwide survey of computerized collection documentation to the annual meeting in Ottawa, Canada.

NONAPPROPRIATED SOURCES OF FUNDING:

I. Office of the Assistant Secretary for the Sciences:

Unrestricted General and Special Purpose Funds - Annual allotments provide funds that support the salary, benefits, and expenses of the Assistant Secretary for the Sciences. The Smithsonian also provides support for the exchange of scholars and scientific information between the Smithsonian and scientific organizations in other nations. Special purpose funds support cooperative agreements between the Smithsonian and the Nation's universities. The Research Opportunities Fund supports unanticipated general research for Smithsonian scholars.

II. Office of Fellowships and Grants:

Unrestricted General and Special Purpose Funds - These funds are primarily for the Institution-wide fellowship programs. Scholars and students on short visits also receive support. A program allotment provides funding for a portion of the administrative expenses of the Office of Fellowships and Grants. The Regents Fellowship Program continues to bring distinguished visiting scholars to the Institution.

In addition, special purpose funds support minority internships and faculty fellowships, minority students pursuing graduate degrees under the Education Fellowship Program, and the Native-American Awards Program. The Scholarly Studies Program encourages research by Smithsonian staff in the sciences, arts, and humanities.

Smithsonian Astrophysical Observatory

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	120	12,996	56	5,839	43	1,981	-	567	163	37,079
FY 1993 Estimate	129	13,708	65	6,684	52	5,260	-	-	167	31,600
FY 1994 Estimate	129	14,263	65	6,684	52	5,250	-	-	172	31,400

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Astrophysical Observatory (SAO) conducts research to increase understanding of the origin and nature of the universe and to communicate this information through publications, teaching, and public presentations. SAO studies diverse systems including the large-scale structure of the universe, clusters of galaxies, galaxies, quasars, and the Sun; and carries out research on the formation, structure, and evolution of the planets, and on topics in laboratory astrophysics, atmospheric physics, and geophysics. SAO research has a major impact in the worldwide scientific community and has helped the United States maintain its leadership in astrophysical research.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Astrophysical Observatory. The Institution requires $190,000 for Necessary Pay for existing staff funded in this line-item. An increase of $365,000 justified in the Mandatory Costs Increases section of this budget will support SAO's rent.

In addition, the Smithsonian requests funding in the Major Scientific Instrumentation line-item to continue construction of the submillimeter telescope array, the conversion of the Multiple Mirror Telescope (MMT) to an instrument with a single mirror (6.5 meters in diameter), and the development of instrumentation for the converted MMT.

PROGRAM - The Smithsonian Astrophysical Observatory is a member of the Center for Astrophysics (CfA) headquartered at Cambridge, Massachusetts, where, in collaboration with the Harvard College Observatory, it pursues a broad program of research organized by the following disciplines: atomic and molecular physics, high-energy astrophysics, optical and infrared

astronomy, planetary sciences, radio and geoastronomy, solar and stellar physics, and theoretical astrophysics.

SAO's observing facilities include the Fred Lawrence Whipple Observatory in Arizona, the Oak Ridge Observatory in Massachusetts, and a millimeter-wave radio telescope at Cambridge, as well as instruments launched from time to time aboard balloons, rockets, and spacecraft.

Research - In FY 1992, SAO made significant advances in several program areas. The following were among the highlights:

- SAO has initiated development of the Advanced X-Ray Astrophysics Facility (AXAF) Science Center (ASC) to provide the link between the international scientific community and the orbiting X-ray telescope. When fully developed, the ASC will be responsible for analyzing and archiving data from the orbiting X-ray observatory and will function as an information clearinghouse and source of support for astronomers using the facility. In fulfilling these functions, the ASC will help researchers maximize the scientific return from the mission.

- SAO developed an instrument that, with improvement, can provide critically needed measurements of atmospheric constituents that play important roles in controlling the ozone balance in the upper atmosphere. This infrared spectrometer was initially developed for astrophysical studies, but it can be used for studies relating to this pressing societal problem. For example, the spectrometer can make uniquely accurate measurements of the stratospheric abundances of the products resulting from the breakdown of the compound methyl bromide, which is used to fumigate agricultural products shipped from one country to another. When bromine from this substance reaches the stratosphere, it promotes the destruction of ozone. Even at concentrations as low as 20 parts per trillion, the effect is likely significant. Measurements from the improved infrared spectrometer, when combined with laboratory measurements and theoretical models, will allow SAO scientists to determine if the agricultural uses of methyl bromide will have to be sharply curtailed in the near future--an action with potential consequences in the billions of dollars, according to information provided by the U.S. Department of Agriculture, which is acutely interested in this problem.

- A 6.5-meter-diameter mirror blank intended to replace the six separate mirrors of the Multiple Mirror Telescope was successfully cast by SAO's partner in this project, the University of Arizona. The mirror is the largest single glass blank ever cast in the United States.

- The extremely powerful radio signals from space of methanol molecules (methyl alcohol) were discovered by an SAO astronomer. This discovery has important implications for understanding how stars form and for measuring the size and age of the universe.

- SAO conceived and developed the idea of using long tethers in space. The Smithsonian has the patent on this concept, and the National Aeronautics and Space Administration (NASA) tested it on a shuttle flight in August 1992. SAO scientists were the principal investigators for two experiments to be carried out with the tether on this flight: electrodynamic processes in the upper atmosphere and dynamic forces affecting a satellite on a string.

- Observations by SAO astronomers of cyclic brightening on a star in the constellation Cetus show long-term variations in magnetic activity analogous to the solar cycle. These measurements represent the first direct evidence for a magnetic cycle on a star other than the Sun. When these results are combined with those from SAO studies to be made of other similar stars, scientists should have a far better understanding of the Sun's enigmatic magnetic behavior.

- Using a 1.2-meter millimeter-wave radio telescope atop the observatory complex in Cambridge, SAO scientists found two new and surprising features of the Milky Way. The first is a layer of molecular hydrogen gas extending some 1,000 light-years both above and below the plane of our galaxy; the second is a cluster of molecular clouds some 100,000 light-years distant from the galactic center.

- The first ground-based detection of gamma radiation at the trillion electron volt (TeV) level ever seen from a source beyond our galaxy was made by the Whipple Observatory Gamma Ray Collaboration, which observed a distant galaxy previously identified as a source of lower-energy gamma rays by the Compton Gamma Ray Observatory satellite. The origin of these extraordinarily powerful rays is a mystery; scientists speculate that they originate near a massive black hole.

- An SAO scientist, with colleagues elsewhere, found convincing evidence that Nova Muscae (a southern hemisphere star observed to experience an explosive outburst of energy in 1991) may be a binary system in which the primary component is a black hole. This black hole, however, would be far less massive than the one responsible for the TeV gamma rays described above.

- The successful imaging of the asteroid Gaspra by NASA's Galileo spacecraft in October 1991 was due in large measure to precise positional information provided by SAO scientists from observations at its Oak Ridge Observatory in Massachusetts. High-resolution photographs from that encounter show a 12-mile-long, potato-shaped, heavily cratered, rocky body scored by long, deep grooves probably caused by successive collisions with other bodies in space.

In support of these and other studies, SAO continued the development of a submillimeter wavelength telescope array, the conversion of the Multiple Mirror Telescope to a single-mirror instrument, and the construction of a two-element optical and infrared interferometer. An 11-meter optical reflector for ground-based gamma-ray astronomy was put into operation at the

Whipple Observatory, where it will be used in conjunction with an existing ten-meter reflector as a "stereo-telescope system."

Education - SAO has always had a deep commitment to education. Even before concerns about the lack of science literacy among young Americans were widespread, SAO began developing Project STAR (Science Teaching through its Astronomical Roots), a program using examples based on astronomy to improve the teaching of basic principles of science and mathematics at the high school level. These innovative materials emphasize low-cost student activities based on "high-tech" devices, such as a hand-held spectrograph (costing a few dollars) that helps students to understand the physics of light.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Unrestricted general funds come primarily from overhead charged on contracts and grants. These funds are used to support administrative positions and other administrative costs of SAO. Special purpose funds come primarily from the Institution's Trust funds. Trust funds provide direct support for some research as well as for the Fellowship and Visiting Scientist Programs, which are the largest users of special purpose funds.

Restricted Funds - Restricted funds consist of specific endowments, as well as gifts from individuals, foundations, or corporations earmarked for particular research purposes.

Government Grants and Contracts - SAO receives the majority of its funds through government agency contracts and grants for research in its particular areas of expertise and experience. This research is often carried out in cooperation with both governmental and academic institutions in the United States and abroad.

Smithsonian Tropical Research Institute

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	138	6,785	3	202	2	860	-	675	-	650
FY 1993 Estimate	161	7,499	3	153	2	382	-	373	-	470
FY 1994 Estimate	161	7,631	3	153	2	360	-	242	-	350

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Tropical Research Institute (STRI) is the Nation's premier center for fundamental research on tropical ecosystems. It maintains the only extensive U.S. research facilities in the mainland New World tropics. Studies at STRI of tropical forest and coastal marine communities provide basic data upon which to base decisions on the wise use and possible fate of these unique and threatened natural systems. STRI is permanent host to a core of tropical researchers, who in turn provide an intellectual environment that attracts a great many visiting scientists and research fellows. STRI researchers study the evolution, behavior, ecology, and history of tropical species in systems ranging from coral reefs to tropical rain forests. Growing strengths in molecular biology, plant physiology, and paleoecology complement established excellence in evolutionary biology and ecology. For more than four decades, STRI has carried out intensive research on Barro Colorado Island (BCI), part of the Barro Colorado Nature Monument (BCNM), which is under STRI custodianship as designated in the Panama Canal Treaties of 1977. Results of BCI studies are now a critical resource of long-term studies for understanding tropical forests, and the station is a center for continuing studies without peer. The ability of STRI researchers to compare and contrast the splendidly different marine systems of the Atlantic and Pacific coasts, makes their research of unique significance. Possessed of perhaps the best tropical research library in the southern part of the Americas and with a state-of-the-art conference center and experienced administrative staff in Panama City, STRI expects to continue to catalyze public awareness of tropical science.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Tropical Research Institute. The Institution requires $132,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Smithsonian Tropical Research Institute performs four major functions in fulfilling its mission in tropical biology:

- conducts fundamental research on the ecology, physiology, evolution, and behavior of plants and animals, including humans, with emphasis on the relationships of tropical organisms to global climatic change;

- provides facilities and logistical support for an international scientific community to study both terrestrial and marine tropical biology;

- supports environmental education, conservation, and management of tropical ecosystems;

- protects and manages the Barro Colorado Nature Monument under a treaty-assigned responsibility.

Most species of plants and animals live in the tropics, yet the tropics are among the least-studied and -understood ecosystems. These species are also rapidly disappearing, and their loss may affect regional and global climatic patterns. Tropical deforestation and uncontrolled harvesting of marine resources cause extinction of species that are sources of medically and commercially important natural products. The study of tropical environments is vital to understanding biological diversity and its change through time. STRI, the only wholly tropical research institute belonging to the United States, is also widely recognized as the world's leader in this field. Its extensive marine and terrestrial research programs provide the knowledge and understanding essential for the effective management and conservation of these resources. Among STRI's primary assets are the trust placed in the Institute by the host country and a long history of collaboration with Panamanian scientists and students. The continuing cooperation of the Republic of Panama facilitated the work at STRI of resident scientific staff and more than 300 visiting researchers representing 28 nations during FY 1992.

Molecular Evolution - Molecular evolutionary research at STRI involving indigenous peoples, tropical marine fish, and several invertebrates is providing fresh insight into the processes of biological diversification and the effects that global processes have on marine populations. The same genetic methodologies that are proving so useful to understanding human disease also are increasing understanding of the biotic consequences of physical catastrophes, such as environmental degradation and the loss of biological diversity.

Behavioral Ecology - The study of behavior of individual species forms an essential link in understanding the origins of biological diversity. Exciting new ideas are being developed at STRI about how novelties arise, how animals select mates, reproduce, and take care of their young. These studies involve birds, crabs, frogs, insects, spiders, and squid. They employ modern techniques for recording, analyzing, and synthesizing animal signals and draw on molecular techniques to determine genetic relationships among the individuals and species being studied. Their results increase understanding of one of the major components in the

evolution and maintenance of biodiversity in the tropics: how animals behave in their interactions with each other and with their environment.

Plant Physiology - STRI has become the world center for tropical plant physiology. State-of-the-art physiology laboratories have been established on Barro Colorado Island and at the Tupper Center. STRI scientists study how tropical forest plants respond and adapt to variations in rainfall, light, temperature, ultraviolet (UV) radiation, and other variables as well as the biochemical and genetic bases for these responses. The Plant Physiology and Molecular Evolution Programs are converging to provide a comprehensive picture of plant adaptation to variable tropical environments.

Tropical Marine Ecology - Tropical marine communities are changing in the short term as a consequence of deforestation, increases in human exploitation, and the discharge of agricultural and industrial wastes and, in the long term, as a result of major physical changes that are both natural and anthropogenic. STRI researchers are documenting coral bleaching associated with El Niño (a phenomenon occurring every three to five years that alters weather patterns by warming surface waters in the equatorial Pacific), altered coral reef structure resulting from the die-off of the Caribbean black sea urchin, and gradual loss of coral colony cover in coastal fringing reefs for reasons yet unknown. The construction of a new research vessel (funded through the Institution's Construction account) will allow expansion of marine studies to the entire Caribbean and tropical eastern Pacific Ocean.

Paleoecology - No complete understanding of the modern American tropics is possible without factoring in changes of climate and vegetation resulting from natural and human influences and the profound biologic and oceanographic consequences of the closing of the Panamanian Isthmus, which occurred about three million years ago. Researchers have found that, contrary to conventional wisdom, tropical forests have changed profoundly over the last 200,000 years, first in response to climatic oscillations associated with the Ice Age and then from ancient modification and clearing by Amerindians during the last 11,000 years. Surprisingly, extant forest over much of the Pacific watershed may be very young, having recovered from prehistoric clearing only after European arrival and the decline of indigenous peoples. This information will help researchers build viable models of sustainable resource use and reforestation. A grant from the Mellon Foundation has funded technical assistance and fellowships under the paleoecology program.

Canopy Access System - The tropical forest canopy is the most diverse and environmentally sensitive habitat on Earth, yet it is poorly known because access has hitherto been extremely difficult. STRI has pioneered the use of modified construction tower cranes to provide safe, rapid access for both researcher and equipment to large areas of forest canopy. STRI installed a small prototype crane in FY 1990, and this system continues to provide design and engineering data for the much larger, permanent access system planned for Barro Colorado Island. Ongoing research is showing for the first time how canopy trees respond to seasonal and shorter-term changes in light, humidity, temperature, and atmospheric carbon dioxide. These studies are revolutionizing understanding of tropical forest biology and will provide the

basis for management and conservation of tropical forests in the face of accelerating deforestation and rapidly changing climate.

Fellowships, Conservation, and Environmental Education - One of STRI's major efforts centers on the development and support of young scientists. In FY 1992, 70 young men and women from 17 nations participated in STRI's academic programs, including students and professionals who took part in courses organized by STRI on conservation and natural resource management and field biology. In addition, STRI continues its programs to educate the lay public about tropical environments and cultures.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds derive from a variety of sources, including receipts and collections from users of Barro Colorado Nature Monument facilities (20 U.S.C. 79b (d)) and annual allotments. Such funds support, in part, the salaries and related costs of the fellowship program, the senior sabbatical program, insurance, and supplies. Funds also support a short-term fellowship program in tropical biology; visiting scientists and students; field research; seminars and lectures; and environmental, conservation, and educational activities in Panama. Funds to support research at STRI also are available from the Institution's Scholarly Studies and Research Opportunities Fund.

Restricted Funds - These funds are in the form of restricted endowments that specify the use of the donation or bequest and gifts and grants from individuals, foundations, organizations, or corporations for specific purposes. These funds support scientific research related to the biological, ecological, and behavioral processes that serve as a basis of tropical ecosystems; research related to geophysical events; publication and distribution of research results; and studies related to endangered tropical environments.

In FY 1991, STRI received $1.1 million from the MacArthur Foundation to support the Center for Tropical Forest Science over a five-year period. In FY 1992, STRI received a gift of $1 million from the estate of Earl S. Tupper to create an endowment fund for research and $500,000 for remodeling two buildings to make space for the paleoecology and molecular evolution programs.

Government Grants and Contracts - In FY 1992, STRI completed a five-year contract of more than $4 million awarded by the Minerals Management Service of the Department of the Interior to study the effects of the 1986 catastrophic oil spill at the Galeta field station. The study continued during 1992 with a $400,000 contract with the Marine Spill Response Corporation.

Smithsonian Environmental Research Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	39	2,414	2	90	-	284	-	207	-	840
FY 1993 Estimate	48	2,422	2	87	-	63	-	20	-	200
FY 1994 Estimate	48	2,480	2	87	-	63	-	20	-	200

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland, performs basic scientific research on coastal air-land-water systems. SERC currently occupies 42,000 square feet of laboratory, office, educational, and support space and 2,600 acres of land on the Rhode River, a tidal river system. The interdisciplinary staff, visiting scientists, and students study how land use, air quality, and weather variations affect the movement of nutrients, eroded soil, and other materials through the system; the dynamics of plant and animal populations; and the overall health of the system. SERC also conducts public education and outreach activities for audiences of varied ages and diverse cultures. The research staff uses long-term observations, controlled experiments, and models to address a wide variety of ecological questions, particularly those relevant to the Chesapeake Bay region. SERC is part of a global network of United States and international sites, each of which is conducting ecological research relevant to its geographical region.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Environmental Research Center. The Institution requires $58,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - SERC research aims to understand how coastal air-land-water environmental systems function. The research staff addresses a wide variety of ecological questions while conducting long-term interdisciplinary studies of a tidal subestuary of the Chesapeake Bay (Rhode River) and its watershed. This watershed contains a mosaic of upland and floodplain forests, marshlands, croplands, pastures, abandoned fields, and residential areas typical of the mid-Atlantic coastal plain. Comparative studies are conducted throughout the Chesapeake Bay region to put results from the Rhode River site in a regional perspective.

SERC studies the effects of herbicides on plants in the Chesapeake Bay, the effects of acid rain on deciduous forests and bay fish reproduction, the role of riparian forests in alleviating agricultural pollution, the effects of increasing concentrations of atmospheric carbon dioxide on natural communities, and the impact of forest fragmentation on woodland bird populations.

Research - SERC has for 18 years continuously monitored global ultraviolet solar radiation at the earth's surface because of growing concerns about the stratospheric ozone layer. Data were compared for two sites with contrasting ultraviolet irradiances. One site, the Mauna Loa observatory in Hawaii, has high ultraviolet irradiance because it is at a tropical latitude with low stratospheric ozone, is at a high elevation, and normally has low air pollution. The other site, Edgewater, MD, has low ultraviolet irradiance due to its temperate latitude with high stratospheric ozone, low elevation, and high levels of air pollution. When the sun was 48 degrees from vertical, the absolute irradiances at Mauna Loa of the shorter wavelength ultraviolet radiation, which is most biologically effective, were about ten times higher than those at Edgewater. At a sun angle of 66 degrees from vertical the short-wavelength irradiance at Mauna Loa was about 60 times higher than at Edgewater. Thus, the probability of adverse biological effects such as eye cataracts, skin cancer, or inhibition of photosynthesis are much higher at Mauna Loa than at Edgewater. These results illustrate the highly variable climatology of ultraviolet irradiance on the earth's surface.

SERC scientists have for six years examined the effects of elevated atmospheric carbon dioxide levels on natural plant communities in tidal marshes. The major effects on sedge plants were an increase in net plant productivity of about 50 percent and an increase in water use efficiency of about 100 percent. On the basis of laboratory experiments most scientists expected that these effects would be transitory and that the plants would acclimate to the increased carbon dioxide level within a month. However, in the actual field experiments with continuously enriched carbon dioxide, the plants are still exhibiting the same effects after six years. Other effects such as decreased respiration have also been documented. These findings show that at least some natural plant communities will respond to increased carbon dioxide concentrations by increasing their carbon dioxide uptake and carbon storage, thus slowing the rate of increase of carbon dioxide concentrations in the atmosphere.

The insecticide Dimilin or deflubenzuron is widely used to control gypsy moths to reduce their damage to trees. This compound's mechanism of action interferes with the morphogenesis or growth pattern of invertebrates. A study of the effects of Dimilin on immature stages of estuarine copepod Eurytemora affinis found that concentrations of 2.2 parts per billion caused 50 percent mortality within 48 hours. Short term effects on copepod development were observed following 6 days exposure to 0.78 parts per billion of Dimilin. These results suggest that concentrations of about one part per billion of this insecticide may adversely impact populations of zooplankton such as this copepod species, which is an important component of the estuarine food chain in the Chesapeake Bay and elsewhere. Since Dimilin concentrations exceeding one part per billion have been reported in some tributary surface waters, more studies of the distribution of the compound and of its biological effects are warranted.

The Chesapeake Bay is a complex estuarine system composed of a series of subestuaries associated with different drainage basins. SERC research has investigated the effects of regional differences in the timing and composition of storm runoff on phytoplankton in the Bay. Large nutrient inputs from one subsystem often trigger phytoplankton blooms and changes in the algal species composition. SERC has developed mathematical models useful in predicting the timing, composition, and extent of these phytoplankton effects of localized runoff. SERC research is also addressing how to predict the effects of weather and land use patterns on the volume and composition of river basin discharges.

Educational Activities - At SERC, groups of students and the general public can observe a variety of natural habitats firsthand. SERC's broad range of educational activities includes teacher-led field trips, self-guided nature trails, and guided tours. About 4,000 visitors participated in SERC's public programs last year. The Java History Trail, a new self-guided exploration of the natural and human history of the Chesapeake, opened in July 1992.

Students from all over the world come to SERC to work with its scientists and educational staff, both in the field and in the laboratory. Predoctoral, postdoctoral, and sabbatical programs for professionals make it possible for visiting scientists to carry out collaborative or independent research. SERC also disseminates the results of its research through scientific journals, national and international meetings and seminars, and the training of scientists, as well as through its public education activities.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds, provided by allotments and grants from the Institution's internal award programs, work/learn and fellowship programs, and the salary costs of a docent coordinator and a public program director.

Government Grants and Contracts - Various Federal and State agencies supply funds for special projects conducted at SERC that use the expertise of the staff and the unique physical characteristics of the site. Four grants from the Chesapeake Research Consortium support research on ecosystem dynamics and community ecology; a grant from the U.S. Department of Energy advances the study of effects of greenhouse gases on tidal marshes; a grant from the National Oceanic and Atmospheric Administration supports work on the relationship between sunlight attenuation in the Chesapeake Bay and plant community dynamics; and a grant from the Maryland Department of the Environment supports studies of the role of riparian vegetation in nutrient dynamics.

National Zoological Park

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	357	16,617	1	172	4	1,772	1	930	-	1,011
FY 1993 Estimate	370	17,861	1	167	4	466	-	832	-	594
FY 1994 Estimate	370	18,266	1	167	4	514	-	832	-	625

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - When the National Zoological Park (NZP) was founded in 1889, its mission was defined as "the advancement of science and the instruction and recreation of the people." The Zoo still works to achieve these ends. NZP has certain features in common with other Smithsonian public facilities and some features that are unique within the Smithsonian family. Its exhibits are alive, and new exhibits require new construction, not merely remodeling. Since NZP's public function is educational and recreational, it seeks to enhance public awareness about biology and related subjects. This emphasis means that the Zoo is concerned with all aspects of life, both terrestrial and aquatic, small and large, past and present. Humankind has been part of the living world, and an increasing influence on it, ever since our species first appeared. Human biological history is, therefore, part of the Zoo's subject matter. Responding to the world environmental crisis, the Zoo is now committed to representing the whole of life on earth, plant and animal, in all its complexity and glory. To this end, NZP will transform the animals-only zoological park into a biological park. In the BioPark, the intermeshing relationships of animals and plants will be highlighted. The BioPark will educate visitors by its spectacle and beauty and foster a concern for the future of life in all its forms. This holistic approach will combine living exhibits of plants and animals with museum-type exhibits of structures, such as skeletons and fossils. It will make fruitful cross-correlations with exhibits by other Smithsonian entities presenting research in art and science.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Zoological Park. The Institution requires $405,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - By historic mandate, the primary mission of the National Zoological Park is the advancement of science, conservation of biodiversity, education, and recreation. NZP serves both the general public and more specialized audiences by promoting the conservation of life on Earth through informal and formal education, research, and animal health programs. NZP's educational efforts center on biological literacy, with special emphases on evolution, complex adaptive interactions, the origins and importance of biodiversity, global change, and the impact of humans on the rest of the world. The Zoo has moved beyond being a zoological park concerned only with animals to becoming a biological park with a scope extending to the whole living world, emphasizing interactions and holism. By cross-referencing other parts of the Institution, NZP focuses on biology in the fields of behavior, physiology, ecology, molecular genetics, conservation (applied and theoretical), veterinary medicine, and wildlife biology. Interdisciplinary cooperation is encouraged in all these areas of research.

In pursuit of its mission, NZP exhibits a wide range of living plants and animals on its 163-acre facility in Rock Creek Park in Washington, D.C., and maintains the Conservation and Research Center on 3,150 acres near Front Royal, Virginia, as a major animal breeding, conservation, training, and research center. The scale and scope of the Zoo's programs require a skilled support staff and specialized equipment and materials capable of developing and maintaining the unique systems essential to supporting living animal and plant exhibits.

Living Exhibits - The BioPark breaks down traditional divisions in biological exhibition between plants and animals, aquatic and terrestrial life, vertebrates and invertebrates, past, present, and future, and even science and art. At the Zoo, exhibit remodeling, renovation, and construction support a new emphasis on education about the living world. NZP goes beyond habitat exhibits that re-create natural environments to make the wonders of biology, such as intricate and beautiful adaptations for survival, accessible to all visitors. In FY 1992, the Zoo opened the Cheetah Research Station, which presents the animal's unique sensory and locomotor adaptations to hunting by high-speed chase. The exhibit also highlights NZP's diverse scientific research on cheetahs. The new Reptile Discovery Center is a closeup interactive exhibit exploring the biology of animals that are fascinating and informative but typically secretive. The Amazonia Gallery was completed with the installation of a tropical river ecosystem--authentic Amazonian trees and plants, as well as a variety of fish, reptiles, birds, and mammals.

At its Rock Creek site, the Zoo cares for more than 6,200 animals, comprising about 500 species and approximately 1,400 plant species. At the Conservation and Research Center, the Zoo maintains more than 800 animals representing 52 species whose status in the wild is precarious. In FY 1991, more than 1,000 births and hatchings occurred at the Zoo. NZP attained a similar success rate in FY 1992 including the birth of a gorilla (which was abandoned at birth by its mother and successfully adopted by another female in the group), Sumatran tiger twins, two clouded leopards, Eld's deer, a flamingo, Bali mynahs, pancake tortoises, Komodo dragons, Australian side-necked turtles, and African plated lizards.

Public Education and Information - The Zoo is placing an ever-increasing emphasis on education. In the 1991-92 school year, more than 25,000 students from eight states and the District of Columbia participated in its educational programs. In 1991, NZP's New Opportunities in Animal Health Sciences (NOAHS) initiated a program of first putting scientists in the classroom with students and then bringing the students in to see those scientists at work. In 1993, the National Zoo is producing, in conjunction with Fairfax County Public Schools, an electronic field trip that will be beamed live by satellite to 10,000 schools across the country. In 1992, the Zoo opened Tiger Stop, the first in a series of exhibits for young children. The planned Amazonia Gallery will be the largest interactive exhibit in the nation on tropical rain-forest science and conservation. Such programs and exhibits are vital to increasing scientific literacy among our citizens and encouraging scientific careers among our children.

NZP also co-sponsored a symposium with Dartmouth College on Women in science. The first of the two-part program explored why so few women choose science careers while the second part focused on the social and institutional changes necessary to encourage more moment to pursue careers in the sciences.

This year's 1993 Easter Monday African American Family Celebration promises to be bigger and better than ever. By offering special activities, the Zoo has now become an active participant in a 95-year old tradition of local African Americans visiting the Zoo on Easter Monday. This year's entertainment features a number of musical groups, three story-tellers, and animal training demonstrations.

Research - In the spring of FY 1992, the Zoo established a multi-media laboratory to expand its expertise in animal behavior and communication. The Smithsonian's interbureau Migratory Bird Center continued research at the NZP. NZP's Reproductive Physiology Program performed fertility evaluations on more than 110 exotic cats of 12 species in 20 North American zoos and produced pregnancies by artificial insemination in Eld's deer, puma, cheetah, tiger, clouded leopard, and black-footed ferrets.

Animal Management - NZP veterinarians and pathologists, working in Africa and at the Zoo, began research on tuberculosis in buffalo, carnivorous marsupials, and birds. Tuberculosis imperils small populations of endangered animals and greatly restricts the movement of animals among Zoos in cooperative breeding programs. Findings also may be useful in addressing the rapidly increasing incidence of tuberculosis in human populations. The veterinary staff is determining antibiotic doses for avian embryos in the shell. The results will allow prenatal treatment of diseases in birds and ultimately in reptiles. The veterinary and reproductive physiology staff conducted a field assessment of the health, genetics, and reproductive potential of the rare Indian lion, the only lion subspecies remaining in Asia.

Animal Conservation - Current research projects at the Conservation and Research Center include reproductive studies on black-footed ferrets, Eld's deer, Guam rails, and other endangered species. The breeding of black-footed ferrets and Guam rails has been extremely encouraging, and Center staff is now participating in reintroduction efforts for both these

species. In recent years, research on the Center's native flora and fauna has increased substantially, focusing on the conservation of migratory birds and the effects of herbivores on the overall wildlife community. In cooperation with the National Park Service, major experimental study plots have been established in several locales on the Center and within the adjacent Shenandoah National Park.

The Zoo staff continues to play a leading role in international conservation through the wildlife and zoo animal management training programs for developing countries. These courses have provided training to more than 800 students and professionals from more than 40 countries. The Center has developed and continues to maintain CONSLINK, an international computerized conservation bulletin board, and Center staff has organized international workshops on microcomputer data management and analysis in India and Malaysia. The Center also is playing a leading role in the coordination of major biodiversity conservation centers in China, Malaysia, and Sri Lanka.

The Smithsonian Migratory Bird Center - Established in FY 1991, the Center is located in a modular building at the National Zoological Park. The Center's mission is to acquire and disseminate scientific information to help conserve birds that migrate from North America to the tropics. To accomplish this mission, the Center initiates long-term research and training in Mexico; develops innovative bilingual (English/Spanish) outreach materials; and supports basic research projects on the population biology of migratory birds. In addition, the Center's staff responds to public inquiry on bird migration and consults with nongovernmental groups and Federal agencies on issues related to migratory bird conservation.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from a variety of sources, including allotments and fees for services and general use of the facilities by Trust fund units or outside organizations. The Zoo uses these funds to support and maintain its facilities, purchase plants and animals for the collection, support multi-year fellowship programs, purchase scientific and research equipment, and support the salary and travel costs of the director.

Restricted Funds - Gifts and foundation grants support training programs, research projects, and the acquisition of animals for exhibit purposes. Since FY 1990, the Zoo has received substantial outside funding to support the training of zoo professionals from developing nations in wildlife management, conservation, and zoo management. This program will continue in FY 1993 and throughout the planning period. Since its creation in 1986, the New Opportunities in Animal Health Sciences Center has continued to receive financial support for its programs in biomedical research.

Government Grants and Contracts - The National Zoo receives direct and indirect support from various Government agencies and departments to support specific research projects. Zoo researchers, in collaboration with investigators from the National Cancer Institute, have studied the effects of genetic monomorphism on reproductive performance,

endocrine status, and animal health. The research staff received financial support from the National Institutes of Health to study in vitro fertilization in domestic and nondomestic cat species. In association with the U.S. Department of Agriculture, the Zoo is expanding research efforts in the areas of sperm and embryo preservation, genetic engineering, and artificial breeding of domestic animals. The Zoo's medical staff is investigating the characteristics of a new primate hepatitis virus with a grant from the U.S. Department of Health and Human Services.

Smithsonian Institution Archives

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	15	706	6	221	-	25	-	3	-	-
FY 1993 Estimate	20	919	2	69	-	-	-	-	-	-
FY 1994 Estimate	20	932	2	69	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Institution Archives (SIA) is the official repository of Smithsonian Institution records and related historical documentation. SIA is the Institution's means of assuring systematic, comprehensive historical accountability of its national public trust. SIA supports Smithsonian research, management, and planning; serves other scholarly research and responds to public inquiries; and provides advice to archival research programs in and outside the Institution. As the Smithsonian grows, ages, and diversifies, SIA accommodates, preserves, and manages a constantly increasing volume and an ever-changing technological variety of Institutional records and other pertinent historical documentation. As a result of the Institution's Restructuring Plan implemented in FY 1993, the Office of the Registrar and the Joseph Henry Papers Project will be merged with the Smithsonian Archives.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Institution Archives. The Institution requires $13,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Smithsonian Institution Archives surveys official records and scholarly research files, appraises their historical research potential, schedules those of lasting evidential and informational value for acquisition and accessioning into its custody, and conducts oral and video history interviews to complement and supplement the written Institutional record. SIA manages the archives thus acquired by preserving, arranging, and describing materials so that they are useful for research. SIA assists scholars and other researchers in using the Archives and responds to public inquiries for archival information. SIA gives advice to and shares archival and oral history experience and expertise with other archives and museums.

Specific accomplishments in FY 1992 include programs in records scheduling and collections acquisition, archives management, research and reference services, and outreach.

Records Scheduling and Collections Acquisition - SIA staff completed surveys, appraisals, disposition recommendations, and scheduling for discrete series of records and scholarly research files in six Smithsonian offices or subbureau departments. A records disposition schedule was issued for the Office of Telecommunications. SIA staff continues to consult with representatives of the National Museum of the American Indian regarding the management and disposition of their archives and records.

Archives Management - Work continued on long-term projects to process and preserve architectural drawings and replace nitrate negatives with safety film copies. In particular, SIA supported work by the Smithsonian Tropical Research Institute to replace nitrate negatives with safety film copies. The Archives provided opportunities for hands-on training of conservation interns of the Conservation Analytical Laboratory. SIA published Volume II of the multi-volume Guide to Photographic Collections at the Smithsonian Institution and collection-level guides for five historical document collections, including Guide to the Exposition Records of the Smithsonian Institution and the United States National Museum, 1867-1939 and Guide to the A. Gilbert Wright Papers, 1936-1981. The guide to the Wright Papers was prepared by an intern from the Confederated Salish and Kootenai in Montana, who has returned to Montana to establish an archives for the Salish and Kootenai Tribal Cultural Center. In cooperation with the Office of Design and Construction, long-range planning for a libraries and archives facility at Suitland, Maryland continued.

Research and Reference Service - SIA holdings contributed to a number of publications, among them an article in Montana Magazine and Georg Wilhelm Steller's Journal of a Voyage with Bering, 1741-1742.

Outreach - Archival and museum personnel from Kenya, Australia, and South America were among some three dozen visitors to SIA for archives management and oral history information.

Statistical Summary of SIA Activity	FY 1990	FY 1991	FY 1992
Accessions Added during Year (cubic meters)	29.59	36.13	35.49
Accessions Added during Year (cubic feet)	1,045	1,276	1,253
Total Holdings at Year-end (cubic meters)	454.95	491.08	526.56
Total Holdings at Year-end (cubic feet)	16,066	17,342	18,595
Reference Inquiries	1,246	1,584	1,866
Items Provided to Researchers	6,009	7,491	6,963
Pages of Copy Provided to Researchers	26,554	23,407	31,997

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Provided by annual allotments, these funds cover the salaries, benefits, and support costs for an archivist and an archives technician.

Smithsonian Institution Libraries

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	99	5,997	12	638	-	131	-	2	-	-
FY 1993 Estimate	109	6,555	12	675	-	13	-	5	-	-
FY 1994 Estimate	109	6,619	12	675	-	13	-	5	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Institution Libraries (SIL) supports the mission of the Smithsonian Institution "for the increase and diffusion of knowledge" by providing access to information in all forms to Smithsonian scientists, scholars, curators, and staff, as well as others with research needs. SIL accomplishes this purpose by building, organizing, managing, housing, and preserving collections; by providing reference services and consultation; by employing all appropriate technologies for finding and disseminating information; and by contributing to and drawing from remote data bases. SIL offers educational opportunities, including exhibitions, internships, publications, lectures, and user instruction. SIL participates in local, national, and international networks and cooperative activities that promote the sharing of information, access to recorded knowledge, and the support and advancement of scholarly communication.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Institution Libraries. The Institution requires $64,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Smithsonian Institution Libraries supports multi-disciplinary research at the Smithsonian Institution by providing research services, collections acquisition and management, and outreach programs. SIL's collections contain more than 1.1 million volumes and include 15,000 journals, 40,000 rare books, and more than 1,800 manuscript units. By centralizing acquisitions and cataloguing, reference and information services, preservation and conservation efforts, and administrative services, SIL gains operational and cost efficiencies. The staff uses computer support and electronic technology for most internal library operations and for resource sharing and communication with other libraries and information repositories. The Smithsonian Institution Research Information System (SIRIS), formerly known as SIBIS,

provides access to collections through an on-line catalogue. SIRIS also is used for acquisitions, cataloguing, and increasingly for circulation and inventory control.

In FY 1992, SIL staff, along with other SIRIS users, initiated plans to upgrade the seven-year-old system into a new system. SIL automated its circulation records in two more locations: the American History Museum Branch and the Smithsonian Environmental Research Center Branch. Thirteen of SIL's 18 locations are now using automated circulation. As a cost-cutting measure, SIL phased out the Smithsonian International Exchange Service, which provided a subsidy to other institutions since the late 19th century for shipments of scholarly materials to and from foreign countries. This exchange service was no longer critical to research since more efficient means of exchange were available, such as electronic networking and improved publishing programs.

Research Support Services - SIL provides daily, direct support to researchers from 18 branch libraries, including Central Reference and Loan Services and the Dibner Library of the Special Collections department. All branches offer sophisticated subject expertise. SIL staff searches on-line data bases and queries national networks to find and retrieve requested items and information. For hard-to-find and highly specialized materials, SIL contracts with commercial document delivery services. SIL's Users Advisory Committee meets several times a year to consider issues affecting SIL policies and service.

In FY 1992, SIL added personal computer-based workstations to selected branches to facilitate researchers' access to SIRIS, commercial data bases, and CD-ROM (compact disc, read-only memory) disc services. SIL updated the User Guide, which provides information about the system's branches and their collections, to include the new National Postal Museum. Several branches prepared and distributed bibliographies and new-title lists to interested scholars and libraries in the United States and abroad. The staff arranged to have the National Museum of the American Indian Resource Center's books catalogued and added to SIRIS. The staff also worked closely with a planner to design a library branch and develop services for the National Postal Museum, a satellite facility of NMAH, located at the City Post Office building near Union Station. SIL, which provided services to the National Philatelic Collection through the NMAH branch, opened the National Postal Museum branch in September 1992. Finally, the staff began planning for library support for the proposed National African American Museum.

Collections Acquisition and Care - SIL acquires materials through purchase and through a gift and exchange program with more than 3,360 partners in 122 countries. However, limited funds for acquisitions have not permitted SIL to purchase sufficient materials to support new Institutional programs, including molecular systematics and other fields of special interest. Escalating costs of journals also have reduced SIL's ability to supply scholars with journals. Even with the additional funding provided for this purpose in FY 1992, SIL faces a projected 16 - 19 percent inflation of journal prices in 1993. As a result, SIL canceled nearly $40,000 in subscriptions. Early projections for FY 1994 indicate similar high inflation rates, which will require further journal cancellations.

SIL houses its collections in Smithsonian buildings in Washington, D.C., and other locations, including Edgewater, Maryland; Cambridge, Massachusetts; New York City; and the Republic of Panama. SIL controls its collections and makes them available to researchers at the Institution and worldwide by systematically cataloguing materials and entering them into the SIRIS On-line Catalogue and into the On-line Computer Library Center (OCLC), an international bibliographic data base. SIL continues to supplement in-house cataloguing with contract cataloguing and conversion of manual records to machine-readable data.

In July 1992, SIL moved administration of the Book Conservation Laboratory to the Preservation Services Department, consolidating the program. The Department completed a pilot project designed to establish and test procedures to microfilm brittle books that are too deteriorated for physical conservation. Using external vendors, the section microfilmed 350 volumes and established contracts to handle another 1,000 volumes in FY 1993. In January 1992, the Department initiated a repair program for nonrare books and journals.

Outreach - SIL serves the wider scholarly community and the public through outreach programs, including exhibitions, publications, and lectures. In FY 1992, with funding from the Special Exhibition Fund, SIL worked with the National Museum of American History to present an exhibition on world's fairs. A related symposium, held on March 20, 1992, drew a capacity crowd. SIL's Quincentenary exhibition, "Science in the Age of Columbus," opened on Columbus Day 1992 and will run until July 1993.

With funding from the Special Foreign Currency Program, SIL administers the Science Information Program for translations, which has brought 267 translations of books into print since 1960. Four new translations were published this year: Mesozoic Coleoptera; a volume on voles in the series Fauna of the USSR; Tetraonidae and Phasianidae of the USSR: Ecology and Morphology; and part 1 of the Handbook of Systematic Malacology. Nearly 25 additional titles are in various stages of production. SIL also published two research guides: The Books of the Fairs: Materials about World's Fairs, 1834-1916, in the Smithsonian Institution Libraries (American Library Association, 1992), an illustrated, annotated bibliography of the 1,700 titles in the collection; and Catalog of the Library of the National Museum of the African Art Branch (G. K. Hall, 1991). SIL staff prepared a new edition of the pamphlet, Book Collecting and the Care of Books, which is distributed without charge to the public on request.

SIL continues to build the fund-raising and development program begun in FY 1991. The James Smithson Society awarded SIL a grant to fund a one-year pilot program postgraduate residency for a minority member of the library and information science profession. Funding also was received to begin the SIL/Dibner Library Resident Scholar Program to promote the study of the history of science and technology. Supported by the Dibner Fund, the program has sponsored four scholars to work on the collections of the Dibner Library. The SIL Newsletter was redesigned to promote the Smithsonian Institution Libraries more effectively and encourage private support.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An administrative allotment funds administrative salaries and related support costs including travel, training, and supplies. A program allotment supports such special events as public lectures and seminars.

Restricted Funds - Gifts and grants from individuals, foundations, endowments, organizations, and corporations provide these funds for specific purposes. In FY 1992, SIL received funding for a pilot program to provide a postgraduate residency for a minority member in the library and information sciences profession. An incumbent, selected after a competitive, national recruitment and a review of applicants by an Institution-wide panel, began the residency in March 1993. The second two Dibner Resident Scholars were appointed for 1993. Support for this program will continue to be provided by the Dibner Fund in 1994.

International Environmental Science Program

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	16	901	-	-	-	-	-	-	-	-
FY 1993 Estimate	15	760	-	-	-	-	-	-	-	-
FY 1994 Estimate	15	768	-	-	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The International Environmental Science Program (IESP) is a multi-bureau interdisciplinary effort to coordinate the Smithsonian Institution's long-term monitoring and study of unique and significant ecosystems. The goal of the Program is to evaluate and eventually to predict the impact of human activities and natural change on selected ecosystems. Research sponsored by IESP occurs at two permanent Smithsonian sites--the Smithsonian Tropical Research Institute (STRI) in Panama and the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland--and several nonpermanent sites throughout the world.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the International Environmental Science Program. The Institution requires $8,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The International Environmental Science Program supports Smithsonian research to meet the urgent need for long-term studies of the world's ecosystems, especially in tropical and subtropical regions where the rapid rate of tropical deforestation, loss of suitable soil, and resulting threat to wildlife are of critical importance to biological diversity and global change. The Program provides funds for teams of scientists, both Smithsonian staff and collaborators, to monitor natural variations in specific environments undergoing human change.

Scientists maintain permanent IESP research sites at the Rhode River Estuary at Edgewater, Maryland, and in the tropical lowland forest of Barro Colorado Island in Panama and the Galeta Reef on the Atlantic side of the Isthmus of Panama. For more than 20 years, scientists have gathered information for a data base on the biological, physical, and chemical components of various ecosystems. Analyses of these data have produced speculations and

verifiable hypotheses about long-term patterns in climate and disturbances resulting from human activity.

Research sponsored by IESP also takes place at nonpermanent sites on Aldabra in the Seychelles and in Venezuela, Brazil, Mexico, and the Amazonian regions of Peru and Bolivia. Smithsonian scientists, with support from the host governments, are continuing their efforts at these sites to gather descriptive data.

The following summaries highlight IESP's most significant accomplishments for FY 1992 at the Program's permanent and nonpermanent sites.

Edgewater, Maryland - For 18 years, Smithsonian scientists have monitored a series of water quality parameters in the Rhode River, a tidal river system. Trend analysis data have revealed no clear evidence of an increase in dissolved nutrients. Phytoplankton chlorophyll had no long-term trend. Total suspended particles and forms of phosphorus, nitrogen, and carbon either decreased or had no trend, except for dissolved ammonium, which increased somewhat. The largest and most consistent trend was a decrease in dissolved organic nitrogen. Correlations were also tested between local and Susquehanna River watershed discharges and nutrient concentration in the Rhode River. In some cases, nitrate was positively correlated with either local or Susquehanna flow depending on season, location in the estuary, and time scale. At both weekly and seasonal time scales, chlorophyll was positively correlated with Susquehanna flow in spring. These results and the pattern of fluctuation in the ratio of dissolved inorganic nitrogen to phosphorus support the hypothesis that chlorophyll concentrations in spring are controlled by nitrate inputs from the Susquehanna, while in summer they are controlled by the regeneration of inorganic nitrogen from organic matter produced in the spring. The results of these trend analyses show that despite major efforts to improve the management of nutrient inputs to the Chesapeake Bay, concentrations of key dissolved nutrients have not changed significantly over the last 18 years.

Panama - At Galeta, long-term monitoring of reef and mangrove communities continues to provide valuable data on the impact of the April 1986 oil spill on these areas. Evidence now suggests that effects of the oil spill are prolonged because of cycles of re-oiling episodes. Oil penetrates mangrove sediment, causing die-off or reduced growth of mangrove trees and seedlings with resulting physical damage to the shoreline. Erosion then re-exposes oil, which kills off or injures recovering reef and mangrove organisms and starts another cycle. In addition, regular monitoring of sea level at Galeta provides data on a critical aspect of global climatic change.

Aldabra - Studies in three long-term projects were continued during the 1992 field season. For the Marine Invertebrate Project, 74 samples yielded numerous polychaete worms, crustaceans, and molluscs, including several undescribed sabellid worm species. For the five-year Terrestrial Tortoise Project, almost 1,500 animals were measured. Scientists took blood samples from 110 individuals, photographed the dorsal and lateral scutes of 120 animals, and collected the skeletal remains of 26 specimens. These data will guide decision-making in the

conservation management of the atoll. For the Marine Turtle Project, scientists tagged 31 hawksbill turtles and 30 green turtles. Six hawksbills tagged in 1985 were recovered and they yielded valuable growth data on this poorly known species. Using a benign stomach flushing technique, scientists investigated the feeding habits of hawksbills and green turtles. They monitored green turtle nesting activity on Aldabra, Assumption, and Cousin islands. Twenty years of data on hawksbill nesting activity on Cousin Island are currently being compiled. These are the most comprehensive data ever collected on this species, and they will be valuable in a reassessment of conservation regulations for the Seychelles.

Venezuela - A continuing 16-year demographic study of several social groups of the red howler monkey documented infant adoption and incest avoidance in this species. These findings help set in context long-term strategies for managing this significant group of primates in the wild and in zoos.

Brazil: Golden Lion Tamarin Project - By June 1992, 26 of 93 reintroduced tamarins bred in zoos (28 percent) remained from those released between 1984 and 1991, and 52 young survived from 77 born (68 percent). Altogether, there are 78 more tamarins in the wild as a result of the Institution's reintroduction program, making this one of the most successful animal reintroduction programs ever undertaken.

The Poco das Antas Reserve was seriously damaged in early 1990 by a major fire that broke out during an unusually dry wet season. Nearly 25 percent of the Reserve was burned, and scientists estimate that forest regeneration was set back up to ten years as a result. The fire also will delay efforts to increase the small population of golden lion tamarins within the Reserve. Scientists are continuing several projects to chart the effects of the fire, and they have initiated several experimental reforestation projects. Findings will help scientists and land managers understand how to rehabilitate damaged ecosystems in the tropics. During 1992, an experimental Ecotourism project was developed. Many members of Congress visited this Program during the United Nations Conference on Environment and Development in Rio de Janeiro.

Mexico - In 1992, scientists and volunteers continued several projects designed to quantify how a dry tropical forest recovers from hurricane and fire damage. Recovery of the forest from hurricane damage has been faster than recovery from fire. Most processes (tree growth rates of leaf litter production, for example), have returned to prehurricane levels in areas affected by the hurricane, but recovery has been slower in burned areas because most of the trees were killed. Reproductive output (seeds and fruits) of the forest continues, but it is less bountiful than it was prior to the hurricane. After four years, the bird community is also very similar to what it had been before the hurricane. In 1992, tree growth data from the project have greatly benefitted the development of a regional plan for sustainable forestry. The data were used to calibrate growth models for a regional sustainable forestry effort called the Plan Piloto Forestal.

Latin America: Neotropical Lowland Research Program - In FY 1992, scientists conducted field and laboratory work in archeology, botany, entomology, herpetology, and ichthyology on the lowland forest biota of Bolivia, Brazil, Colombia, Costa Rica, Ecuador, French Guiana, Peru, and Tobago. Results of these investigations provide new information on the composition and distribution of the neotropical biota that is important for the completion of conservation planning and several major publications. An example of the interrelationship of conservation biology and systematic biology is that two program researchers participated, by invitation, in conferences organized by Brazil and Mexico addressing, in part, their biodiversity assessment as background for the United Nations Conference on Environment and Development in Rio de Janeiro.

Major Scientific Instrumentation

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	-	2,276	-	-	-	-	-	-	-	-
FY 1993 Estimate	-	7,939	-	-	-	-	-	-	-	-
FY 1994 Estimate	-	7,291	-	-	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The development of major scientific instrumentation is vital to enable Smithsonian scientists to remain at the forefront of their fields. Because of the magnitude of the costs and the time scale required to fabricate new instruments and reconfigure existing ones, the Institution requests funding for such projects under this line-item rather than under individual bureau line-items. Since these projects will, of necessity, require long-term development and multi-year funding, the Institution also requests that funds in this line-item be available until expended.

For FY 1994, the Institution requests no-year funding of $7,291,000 to continue construction of the submillimeter telescope array ($5,370,000), to continue conversion of the Multiple Mirror Telescope (MMT) ($1,608,000), and to develop instrumentation for the converted MMT ($313,000).

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for Major Scientific Instrumentation. This line-item reflects a reduction of $648,000 in the funding required for the conversion of the MMT.

PROGRAM - The development of major scientific instrumentation, such as modern telescopes, requires research and development (R&D) over an extended period of time. Teams of Smithsonian scientists, technicians, and contractors, focused on critical telescope elements such as optics, detectors, receivers, and support structures, are engaged in these R&D efforts. To facilitate the unique extended R&D efforts that are critical to the completion of major scientific instrumentation, the Institution established this no-year line-item in the FY 1989 budget.

Since FY 1989, the Smithsonian has requested funding under this line-item for two projects for the Smithsonian Astrophysical Observatory:

- development of an array of submillimeter telescopes;
- conversion of the Multiple Mirror Telescope.

Both these advanced scientific projects involve the fabrication of major new instrumentation that will take a number of years to complete. SAO expects the submillimeter telescope array to be completed in FY 1997. Annual operating costs are expected to be about 8-10 percent of the construction costs. Almost all operating personnel will be hired during the design and construction phases of the project. Thus, they already will be included in the SAO base when operations commence.

SAO expects "first light" for the converted MMT in 1995. SAO originally estimated that the total cost to the Smithsonian for the conversion would be no more than $10 million (1987). Except for the effects of inflation, SAO's estimate is unchanged, $11 million (1992).

Construction of an Array of Submillimeter Wavelength Telescopes

Scientific Justification - The last frontier for ground-based astronomy consists of observing the skies with telescopes sensitive to submillimeter waves--light with wavelengths between those of infrared and radio waves. Only in the past few years has technology advanced sufficiently to allow the construction of telescopes that can observe the universe at submillimeter wavelengths. When completed, SAO's submillimeter wavelength telescope array will have a resolving power of better than one second of arc, far finer than any single-antenna submillimeter wavelength telescope. This array will make fundamental contributions to astronomy and astrophysics by:

- advancing studies of star formation through mapping the structure and motions of the disks that eventually contract into stars;

- advancing studies of galactic structure through detailed mapping of emissions from carbon monoxide molecules;

- permitting accurate measurements of submillimeter wavelength emissions from quasars and active nuclei of galaxies that will clarify the relationship between these enormously energetic objects and may reveal the source of their energy;

- providing new information about the surfaces and atmospheres of planets and other objects in the solar system.

Status and FY 1994 Plans - Since beginning its submillimeter program in FY 1987, SAO has been assembling a team to develop the array and its associated high-frequency receivers. In January 1991, the preliminary design for the instrument and the site data were presented to the

project's 15-member Scientific and Technical Advisory Group, which was created in 1989 to help guide the project during its multi-year development. This group of preeminent scientists from the international astronomical community approved the design and recommended that the array be located on Mauna Kea in Hawaii. Negotiations with the University of Hawaii to site the SAO submillimeter array of telescopes in this location are now in progress. Meanwhile, the antenna specification activities were completed and procurement activities started. The rest of the design study for the array project is now essentially complete. Receiver development resulted in the completion of a state-of-the-art 230 GHz receiver, which is being tested on a suitable European antenna located in Chile.

In FY 1992, SAO began construction of the major electronic systems associated with the antennas. These systems include the correlator, the prototypes of the high-bandwidth data-transmission systems, and the first operational receivers. While negotiations with the University of Hawaii are in progress, the array team is completing the planning and the environmental impact assessment for a suitable site.

Goals for FY 1993 include acquiring the observing site and completing the architectural design of the summit facility. The site agreements will include the development of an archeological plan for the area. The project also expects to prepare a temporary observing site at the Massachusetts Institute of Technology's Haystack Observatory in Westford, Massachusetts, which will serve as a convenient facility for assembling the carrier and the first antenna in late 1993. Receiver construction will continue at an increasing pace to provide receivers for the first antenna tests at Westford. Construction will be well under way on the correlator--the very large, special-purpose computer that decodes the signals from the antennas to reconstruct the radio images of the sky.

For FY 1994, the Institution requests a total of $5,370,000 for the submillimeter array program in the Major Scientific Instrumentation line-item. Funds will be used to assemble and test the first two antennas and to complete the procurement of the remaining antenna components. SAO also expects to let the first construction contracts to prepare the site. The complete list of proposed FY 1994 expenditures is as follows:

	($ millions)
-- continue assembly and test of antennas and carrier	$1.5
-- Mauna Kea Buyin	1.0 *
-- contract for design of the observing site	0.3
-- fund receiver development	1.2
-- additional correlator development	0.4
-- signal transmission and data handling equipment	0.5
-- administrative expenses and general supplies and equipment	0.5
Total FY 1994 Costs	$5.4

*Mauna Kea buyin expenses were originally anticipated in the FY 1993 budget, but have been delayed by lengthy negotiations on the site. Funding originally budgeted in FY 1993 for the buyin was used to reduce FY 1994 antenna expenses.

Project Schedule - The multi-year construction schedule for the submillimeter array began following the design study phase in FY 1991 and is planned for completion in FY 1997. The following chart shows the total level of funding required for the project from FY 1989 through completion of the instrument in FY 1997, including allocations already made.

PAST AND PROJECTED FUNDING FOR THE SUBMILLIMETER TELESCOPE ARRAY
FY 1989 through FY 1997
(1992 dollars; actual where already spent)

	FTE	($ millions)[1,2]
FY 1989	3	0.8
FY 1990	6	1.6
FY 1991	12	3.6
FY 1992	18	6.4
FY 1993	25	6.9
FY 1994	25	6.9
FY 1995	34	8.2
FY 1996	34	5.7
FY 1997	34	4.4
Total	191[3]	$44.5

[1]Rounded to the nearest $100,000.
[2]Includes all personnel costs (for FY 1994, for example, the personnel costs will total $1.6 million).
[3]Represents cumulative workyear requirement over the nine-year period.

Conclusion - When operational, the SAO submillimeter telescope array will be a major scientific instrument of international stature. The array will be unique in the world in its combination of wavelength coverage and resolving power. It will therefore measurably enhance the scientific competitiveness of the United States.

Conversion of the Multiple Mirror Telescope (-$648,000)

Scientific Justification - Conversion of the MMT (located at Mt. Hopkins in Arizona) to a telescope with a single 6.5-meter diameter mirror will more than double the light-gathering power of the telescope and increase its field of view more than several hundred times. The converted telescope will allow scientists to observe many objects simultaneously; for certain types of problems, the converted telescope will therefore permit up to 300 objects to be

observed simultaneously, an enormous increase in efficiency of data collection over that possible with the MMT. The capabilities of the converted MMT will have many applications by:

- permitting study of large patterns in the galaxy distribution that may offer insights on the evolution of the universe;

- measuring the velocities of gas in very distant galaxies that will help scientists determine the rate of expansion of the universe when it was younger;

- allowing pioneering studies of rapidly changing astrophysical phenomena in double stars and in systems with one star whose core is so dense that not even light can escape from it--a black hole.

Status and FY 1994 Plans - With funding provided for the conversion project in FY 1987 through FY 1992, SAO ordered, received, and tested the glass required for casting the 6.5-meter mirror in the University of Arizona's Steward Observatory Mirror Laboratory. SAO also selected a consulting engineering firm; completed the conceptual and preliminary design for the building modifications, optical support structure, and primary mirror cell; and purchased the f/9 secondary mirror blank.

As part of its contribution to this joint project, the University of Arizona's Mirror Laboratory enlarged the casting furnace and constructed a mold to allow the 6.5-meter mirror to be cast. The Mirror Laboratory also successfully polished two 3.5-meter diameter mirrors and a 1.8-meter diameter mirror, proving the capability of the "stress-lap" polishing technique developed by the Mirror Laboratory that will be required to polish the 6.5-meter diameter mirror. In 1992, the Mirror Laboratory successfully cast the 6.5-meter diameter mirror, the largest single mirror blank ever cast in the United States. In FY 1993, SAO will issue fabrication contracts for the building, optics support structure, and primary mirror support. SAO will also order the blank for the f/5.2 secondary mirror. The Mirror Laboratory will clean and begin final shaping of the 6.5-meter primary mirror blank.

For FY 1994, the Institution requests a total of $1,608,000 to continue the conversion process. This request represents a decrease of $648,000 from the FY 1993 level of $2,256,000. The main efforts in FY 1994 will be to polish the 6.5-meter diameter mirror, fabricate the on-telescope aluminizing system, and assemble and test the primary mirror cell.

Project Schedule - SAO expects "first light" for the converted MMT in 1995 at a total cost to the Smithsonian of no more than $11 million (1992). The exact cost of the conversion and the precise contribution of the University of Arizona are still not known, but $11 million is believed to be a reliable upper figure for the Smithsonian Institution's contribution. This total includes amounts allocated in FY 1987 for the purchase of glass and refractories. The funding provided in FY 1988 was part of the one-year appropriation for SAO. Beginning in FY 1989, the Smithsonian requested and received funding for the MMT conversion as no-year funding in this line-item. The breakdown of funds allocated by year is shown in the following chart.

PAST AND PROJECTED FUNDING FOR CONVERSION OF THE MULTIPLE MIRROR TELESCOPE
FY 1987 through FY 1994
(1992 dollars; actual where already spent)

	($ millions)[1]
FY 1987	0.5
FY 1988	0.5
FY 1989	0.6
FY 1990	0.9
FY 1991	2.0
FY 1992	2.4
FY 1993	2.3
FY 1994	1.6
FY 1995	0.2
Total:	$11.0

[1]Rounded to the nearest $100,000.

Conclusion - The MMT conversion is the most cost-effective way to ensure that Smithsonian astronomers will remain in the forefront of ground-based optical and infrared astronomy through the remainder of the 20th century and beyond.

Instrumentation for the Converted MMT

In FY 1992, SAO began work on this instrumentation. Major activities were analysis and mechanical design of the robot positioner structure, design of the fiber optic probes and the associated fabrication equipment, and optical design of the spectrograph that must simultaneously analyze the light carried via the 300 optical fibers. During FY 1993, SAO will complete design of the robot positioner, begin the mechanical design of the spectrograph, and acquire some of the optical components. In FY 1994, SAO proposes to complete the mechanical design of the spectrograph and acquire optical components for the spectrograph.

For FY 1994, the Institution requests a total of $313,000 to develop and build this new instrument for the converted MMT.

National Museum of Natural History/Museum of Man

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	564	32,614	4	418	-	1,836	-	2,547	17	1,081
FY 1993 Estimate	623	35,572	2	345	1	1,430	-	6,588	17	708
FY 1994 Estimate	621	35,623	2	345	1	1,186	-	8,346	17	712

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Museum of Natural History/Museum of Man (NMNH/MOM) is the largest research organization in the Smithsonian complex. Studies carried out by the Museum's staff--and by scientists worldwide using its collections--increase understanding of the diversity, abundance, and evolutionary relationships of plants and animals living today and in earlier periods and shed light on the origin and evolution of the Earth and solar system. Studies of different cultures enhance knowledge of cultural history and human adaptation to the environment, while research on human biological variation and evolution helps to uncover the history of humankind from paleolithic times to the present. Through its many exhibits, educational programs, and scholarly and popular publications, NMNH/MOM disseminates knowledge about the natural and cultural diversity of the world. The Museum recognizes that, with more than six million visitors each year, it has a unique opportunity and responsibility for improving scientific literacy, and it is committed to presenting the best current scientific thinking in a stimulating environment. The Museum houses one of the world's largest and most valuable assemblages of natural history specimens and cultural artifacts. It acquires, preserves, cares for, studies, and interprets these vast collections and makes them accessible as an indispensable resource to the scientific community and public.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Museum of Natural History. The Institution requires $501,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of 2 workyears and $450,000 associated with the return of Columbus Quincentenary funding.

PROGRAM:

Research - NMNH/MOM's staff of 123 scientists is conducting more than 200 research projects throughout the world. Many of the projects are contributing to an understanding of worldwide losses in biodiversity and the causes of global environmental change.

Current research initiatives include the following:

- In June 1992, the Museum, in collaboration with the University of Guyana and the World Wildlife Fund, opened the Centre for the Study of Biological Diversity in Georgetown, Guyana. The two-story Centre, the first of its kind in South America, includes library, office, laboratory, and collection space for ongoing studies of the flora and fauna of the Guianas by the Museum and the University. The Royal Bank of Canada donated the funds for the building, and the program is supported by the Smithsonian and the University. The Centre will expand the research program to include education and conservation concerning the biodiversity of northeastern South America.

- Three months before the cataclysmic eruption of Mt. Pinatubo in the Philippines, on June 15, 1991, the Museum's Global Volcanism Program (GVP) was already reporting activity at this long-dormant volcano through its monthly Global Volcanism Network. GVP data show this eruption to be the world's largest since 1932, and many believe that its stratospheric products are cooling the climate. The GVP staff, working with interagency groups, is studying this intriguing possibility. They also contributed to an international meeting in March 1992 on volcanoes and climate.

- Museum archeologists working at Olorgesailie, Kenya, are employing new methods to investigate the history of landscape use by early people. They are uncovering evidence of biotas, climates, geological events, and traces of early humans 1.2 million to 49,000 years ago and probably to within 5,000 years of the present. This is the first site where this landscape approach has been applied. In 1991, archeologists uncovered new fossil sites, and excavations recovered approximately 2,500 stone artifacts and fragmentary fossil bones in 990,000-year-old soil.

Briefings and Workshops - The 15th Annual Conference of the Society of Ethnobotany, organized in part by Museum anthropologists, was held at the Smithsonian in March 1992. At the meeting, a Museum anthropologist announced that he and his colleagues have discovered what they believe is the wild ancestor of today's summer squash. Their findings challenge traditional views of the origins of this important crop plant and provide convincing new evidence for the importance of Native American plant domestication in prehistoric eastern North America.

The NMNH Biological Diversity Program held an international workshop in June 1992 on standard methods for measuring biological diversity. The scholarly workshop, focused this year on mammals, is the second in a series designed to set standards for field biologists worldwide.

Research Publications - Among the Museum's 620 publications in 1991-92 was Disease and Demography in the Americas. Written by leading experts and edited by two Museum scholars, it explores patterns of population in the Americas both before and after 1492.

Collections - Among the notable FY 1992 acquisitions were:

- 500 ethnographic objects from New Guinea;
- a large collection of deep-sea manganese nodules, documenting potential ore sources for undersea mining;
- more than 10,000 specimens of midwater crustaceans and cephalopods from the University of Oregon;
- the Thompson diamonds--a magnificent set of three cognac-hued, pear-shaped diamonds with a total weight of 90.5 carats.

The Museum's multi-year program to develop a modern computer-based Collection and Research Information System moved ahead in FY 1992 with the completion of the Mitre Corporation study of the system architecture.

Public Programs - Record crowds during FY 1992 approached the Museum's highest attendance record of 7.8 million visitors set in 1987. The Museum reached an attendance level of over 7.1 million visitors in FY 1992 owing to the popularity of the Columbus Quincentenary exhibition "Seeds of Change." This exhibition, the largest ever undertaken by the Museum, commemorates the 500 years of cultural and biological exchanges between the eastern and western hemispheres since the Columbus voyages. The exhibition continues to generate unprecedented publicity nationally and internationally and will remain open through May 1993.

Two additional exhibitions deserve mention. "Pitchers, Pots and Pipkins: Clues to Plantation Life," an exhibit featuring a variety of ceramic bowls, cooking pots, pitchers, and serving dishes excavated from slave cabins and plantation mansion kitchens, was installed in the Museum's renovated Constitution Avenue lobby. "Peoples of the Luzon Mountains: Philippine Photographs by Eduardo Masferre" documents the unique peoples of the remote highland region of Luzon, the largest island in the Philippines. The images include a series of striking portraits of the Luzon highland people and environs.

For the third year, the Museum's Office of Education conducted a Natural Science Institute for the Teachers of Minority Students, featuring activities for grades 4-12 aimed at learning how to "read" natural history.

The Museum continues development of new Native American and Geology, Gems, and Mineral complexes. Renovation of the Insect Zoo has begun with the reopening scheduled for September 1994.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Museum derives funds from a variety of sources, including its share of net proceeds of the museum shops and food concessions. During FY 1992, allotments provided for the salaries of the Museum's director and three staff members as well as support for one meeting of the Museum's new National Board.

NMNH/MOM benefits from the Institution's many awards programs such as the Special Exhibition Fund, Collections Acquisition Program, Research Opportunities Fund, Research Exchange Fund, and Scholarly Studies, all of which support research, education, and exhibit projects.

Examples of awards in FY 1992 include support for a study of how humans have affected global change in Egypt's Nile Delta, causing the disappearance of lagoons and wetlands as well as changes in sea level and climate; an interactive exhibit on spiders that will use high-tech films, fiber optic murals, live and model specimens, and explanations from prose, poetry, and technology of how spiders have influenced humans; and a Spanish-language brochure for the "Seeds of Change" exhibition.

Restricted Funds - The Museum receives support for specific programs and projects through donations from private individuals, foundations, and corporations. In 1992, Mrs James Stewart Hooker pledged $3 million toward construction of a new Geology, Gems, and Mineral Hall, expected to open in 1996. Research grants include support from the Gauntlett and Mellon foundations for botanical and ecological research under the Biological Dynamics of Forest Fragments (BDFF) project in Brazil; from Xerox for the "Seeds of Change" exhibition; and from Exxon, whose support since 1975 for the Smithsonian West-Atlantic Mangrove Program (SWAMP) has made possible a detailed long-term and multi-disciplinary analysis of the Twin Cays mangrove swamp ecosystem on the Barrier Reef Platform of Belize.

NMNH/MOM manages the Smithsonian Marine Station at Link Port (SMSLP), Fort Pierce, Florida. Hunterdon Endowment funds are dedicated to the basic operating support of this oceanographic research facility for use by Smithsonian and national and international visiting scientists. Seward Johnson Endowment funds provide for the support of the Johnson-Sea-Link submersible owned by the Harbor Branch Oceanographic Institution (HBOI), the host facility. NMNH is proceeding with a fund-raising strategy to support construction of a

laboratory and residential facilities that will serve the mission of SMSLP and its research initiatives.

Government Grants and Contracts - These funds are provided by various government agencies and departments for special projects conducted at the Museum to take advantage of its unique scientific expertise in systematics. An example includes funding received from the United States Information Agency for the Bering Sea Eskimo exhibition, which brings the Inuit culture to European cities.

Conservation Analytical Laboratory

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	38	2,722	-	-	-	77	-	18	-	-
FY 1993 Estimate	42	2,683	-	-	-	-	-	-	-	-
FY 1994 Estimate	42	2,735	-	-	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Conservation Analytical Laboratory (CAL), located at the Museum Support Center in Suitland, Maryland, is the Smithsonian's specialized research facility for the conservation and technical study of museum objects. CAL helps the Smithsonian and other museums in the study, preservation, and conservation of objects of artistic, scientific, cultural, and historical importance. CAL staff examines the conservation-related properties of these materials, extracts historical information from their technical record, and improves conservation treatment technology. Staff conservators apply the knowledge gained from scientific research directly to the actual treatment of objects. Experience with a wide range of materials in analytical and technological studies enables CAL to collaborate in anthropological and art historical research. The wide variation in the state of preservation of objects in the National Collections provides the overview needed to define directions in conservation research. CAL also conducts a conservation-training program in basic and advanced conservation theory and technique, supports and organizes workshops and seminars, and disseminates the latest knowledge in the field of conservation and cultural materials research to museums and research professionals throughout the United States and the world.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Conservation Analytical Laboratory. The Institution requires $52,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The major programs of CAL are archaeometry, conservation research, conservation training, and technical information. These programs, while distinctive, share methodologies and requirements for equipment and staff expertise. Hence their integration within CAL produces a strong, positive, mutual reinforcement.

Archaeometry - In this program, physical and natural scientists collaborate with scholars from the arts and humanities to address questions of an art historical or archeological nature. A number of techniques used in these programs requires specialized facilities that CAL, in collaborative agreements with the National Institute for Standards and Technology (NIST), operates at the latter institution.

Work on the application of digitized image handling and analysis to the various visual information representations for paintings obtained during technical examination (such as radiographs and infrared images) continued in close collaboration with both industry and the National Archives. With the Archives, CAL organized a two-day symposium on analytical image processing. CAL continued developmental work on neutron activated autoradiography, a technique for the technical study of paintings, in collaboration with German colleagues at the Hahn Meitner Institut in Berlin.

Research on the provenance of Maya polychrome pottery, in which CAL staff collaborates with scholars at, among others, Duke University, the National Museum of Guatemala, and the Institute for Anthropology and History of Guatemala, produced results which, in combination with the decipherment of the glyphs on these vessels, provide new insight into the organization of Mayan communities and the relationships among their rulers. CAL will incorporate these results in a traveling exhibit planned for 1994.

In the biogeochemistry program, CAL installed a facility for polymerase chain reaction (PCR) amplification of DNA. One stunning result in this program was the purification and identification of indigenous protein in a 350-million-year old fossil of Lingula. Thus far, it had been thought that biomolecules in fossil records did not survive beyond about 100,000 years.

Conservation Research - Research in this program pursues the identification and characterization of the chemical and physical processes involved in the deterioration of materials in museum collections (conservation science) and the development and evaluation of treatment techniques for unstable collection items (treatment technology). CAL's scientists and conservators address these questions in collaborative teams.

One indication of the success of this program is the interest that its work has elicited not only in the conservation field but also outside it. Recently for example, CAL was approached by private industry to explore mechanisms for collaboration and technology transfer in projects on mechanical properties of materials and on the conservation and preservation of photographic materials.

In the research on mechanical properties and behavior of materials and objects, CAL researchers have been able to predict the behavior of objects under changing environmental conditions (temperature and relative humidity) using computer-generated models and properties for the constituent materials measured in the laboratory. This understanding of environmental conditions may make it possible to formulate more realistic values for the permissible ranges of temperature and relative humidity in the museum climate. Collaborative work with the

National Gallery of Art and the Canadian Conservation Institute on the protection of works of art in transit resulted in a series of regional workshops on the packing and transportation of paintings, organized throughout the United States and Canada. The first of those workshops was hosted by CAL at the Smithsonian Institution.

Work on the preservation and conservation of photographic materials centered on the conditions for long-term storage at low temperature, so-called cold storage. The results of this investigation, which incorporates the mechanical behavior of photographic materials as well as the traditionally considered chemical properties, appear to challenge the commonly advocated practice of conditioning the material to lowered humidity before cold storage.

CAL's research on the natural and accelerated aging of artists' materials, especially paper, is contributing to the development of standards for the display of library and archival materials by a committee of the National Information Standards Organization (NISO). CAL staff continued research on modern synthetic materials with study of the deterioration of elastomers, centering on materials from the collections of the National Air and Space Museum. With the American Chemical Society, CAL co-sponsored a special symposium on polymers in museum collections.

The analytical services section provided increased scientific and technical support to conservators and curators throughout the Smithsonian. About 6,000 samples were analyzed in response to about 400 requests for assistance.

Conservation Training - The Furniture Conservation Training Program (FCTP) started its third class of students, while the second class completed its course work and will commence the internship year. In addition to the four courses taught as part of the FCTP, but also open to other interested professionals, CAL organized six advanced conservation courses on subjects such as the identification of synthetic dyes on historic textiles, appropriate materials for use in the display of collections, the properties of leather, and the use of the suction table in the treatment of paintings and textiles. CAL continued the joint CAL-Johns Hopkins University graduate program in conservation science. The program's first Ph.D. degree was awarded early in FY 1993, with a second expected later this year.

The first two interns in archeological conservation--one postgraduate and one graduate student--joined excavation projects in the Middle East and Central America. The Samuel H. Kress Foundation provided funding assistance for their travel expenses. Four other recently graduated conservators received postgraduate internship training, as did three graduate students, two preprogram interns, five summer interns, one midcareer fellow (funded with financial assistance from the Samuel H. Kress Foundation), and an Indonesian textile conservator funded by the United States Information Agency.

Technical Information - About 720 requests for information from the general public were answered by CAL's information specialists, scientists, and conservators. CAL's information program also handled about 175 requests for information assistance from Smithsonian staff and

another 220 from museum professionals nationwide. In addition, CAL's information specialists performed about 220 data base searches for museum professionals inside and outside the Smithsonian on the Conservation Information Network (CIN), of which CAL is a contributing partner. The number of reprints in CAL's collection of conservation literature grew by about 3,850 articles.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds, derived from the fees charged to participants in CAL's advanced conservation specialist courses, partially offset the expenses incurred in organizing these courses. Funds from the Smithsonian's Scholarly Studies Program and the Research Opportunities Fund are available to support research projects. Funding for FY 1992 supported research in various projects in biogeochemistry, the Art in Transit program, and ceramic technology studies in Bronze Age Southwest Asia.

Restricted Funds: The Samuel H. Kress Foundation supported a mid-career conservation fellowship at CAL, as well as travel expenses of interns in the CAL training program in archaeological conservation.

Museum Support Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	48	7,090	-	-	-	-	-	-	-	-
FY 1993 Estimate	56	5,236	-	-	-	-	-	-	-	-
FY 1994 Estimate	56	5,303	-	-	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Museum Support Center (MSC), located in Suitland, Maryland, is a specially equipped and environmentally controlled facility providing state-of-the-art technology for scientific research, conservation, and collections storage. MSC accommodates collections storage in four sections (or pods) for three general types of needs: collections storage in cabinets, "wet" collections storage on open shelving for biological collections in alcohol, and "high-bay" storage for very large objects. MSC also houses the Conservation Analytical Laboratory (CAL) and conservation laboratories for the National Museum of Natural History (NMNH) and the National Museum of American History (NMAH), the NMNH Laboratory for Molecular Systematics, and other specialized NMNH research laboratories. MSC's facilities provide the best conditions possible for preservation of the National Collections for future generations.

The FY 1994 estimate includes $3,102,000 requested as no-year funding for MSC collections storage equipment and MSC Move; $1,207,000 for MSC operations; and $994,000 to reimburse the permanent Judgment Fund of the U. S. Treasury in compliance with a vendor judgment relating to the purchase of MSC storage equipment.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Museum Support Center. The Institution requires $67,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Museum Support Center provides facilities for the conservation and preservation of museum objects, conservation training, scientific research, and storage of

museum collections. New, specially designed storage equipment is now available at MSC to house the more than 36 million specimens and objects.

The MSC Operational staff provides computer services for administrative, research, and collections management data, including the transfer to MSC of the more than 36 million specimens and objects. The staff also meets the facility research and collection study needs of MSC occupants, provides shipping and receiving services, moves equipment, oversees safety and security operations, and maintains strict environmental and cleaning services required for the proper storage of museum collections.

The size and scope of the move of Smithsonian collections to the Museum Support Center, including the preparation and relocation of millions of objects and specimens from nine curatorial departments in two different museums, are unprecedented within the museum world. The volume, characteristics, and variety of the collections and the distance of the transfer pose special challenges that must be addressed as part of the move. MSC Move staff technicians inspect the objects for pests and conservation problems, clean them, and stabilize them prior to their move. The collections relocated to MSC are properly curated, less crowded, and stored in better controlled environmental conditions than collections in most other Smithsonian storage areas. As a result, they have far better prospects for long-term preservation and will be significantly more accessible to researchers.

Early in its planning for the relocation of collections, the Smithsonian established the concept of the "Initial Move," with the objective being the phased transfer of over 36 million designated objects from NMAH and NMNH to MSC over a multi-year period. These collections will occupy approximately two-thirds of the MSC storage space, and the remaining third will be used for "Growth." To date, the Smithsonian has focused on the Initial Move into the high-density storage equipment. During this time, however, many of the collections of the curatorial departments have continued to grow. As a result, the distinction between those collections and activities designated for the Initial Move and those collections targeted for the future Growth Move has blurred. The Institution has begun to conduct a small amount of Growth Move activity prior to completing the Initial Move activity.

MSC Collections Storage Equipment - The General Services Administration (GSA) has awarded all reprocurement packages that provide the storage equipment required to relocate the Initial Move high-density collections to MSC. By March 1, 1993, the contractor had installed 2,667 shelving cabinets, 5,158 drawer cabinets, 833 insect cabinets, 668 botany cabinets, all of the cantilever shelving, all of the compactor screens, 272 large cabinets, 8,133 shelves, 42,835 drawers, and 850 polyscreens. GSA anticipates completion of manufacture and installation during 1993 of all high-density reprocurement storage equipment packages for the Initial Move.

The Institution is now addressing two of the three remaining requirements for MSC collections storage equipment:

- design, purchase, and installation of the "high-bay" collections storage equipment for Pod 4;

- procurement and installation of the balance of the collections storage cabinets for Pods 2 and 4, begun in 1991.

The design, purchase, and installation of the balance of the "wet" storage equipment for Pod 3 will be addressed in future years when funds are available.

MSC Move - During FY 1992 and FY 1993, NMAH and NMNH continued to move collections to MSC with assistance from the Move staff. NMAH moved 4,700 objects, including textiles, patent models, baskets, mats, and musical instruments. Approximately 57,000 objects from the North American Indian collections were moved. Other collections moved included 1,205,100 insects, 1,300 mammals, 4,700 bird nests, 20,000 bird eggs, 11,100 echinoderms, sponges, and fossil corals, 19,145,300 fossils and 137,800 plants. In addition, many collection objects already moved to MSC and stored in temporary locations were relocated to their final storage destination in the Pods. For the Natural History Building's Major Capital Renewal Project (mechanical renovation) to proceed on schedule, the Smithsonian must increase the rate at which it is currently moving collections to MSC. The North attic was vacated by January 1, 1993. The West attic will be emptied by December 31, 1993.

ARTS AND HUMANITIES

Assistant Secretary for the Arts and Humanities

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	29	2,297	8	559	-	250	1	338	-	-
FY 1993 Estimate	35	2,535	9	702	-	45	1	105	-	-
FY 1994 Estimate	35	2,582	9	702	-	50	1	105	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of the Assistant Secretary for the Arts and Humanities provides direction to bureau directors, support offices, and programs in the arts and humanities in developing, executing, and managing their individual missions. It oversees essential museum functions, such as collections management, exhibitions, education, and public programs. The Office provides leadership in assuring equal employment opportunities and in achieving full physical and intellectual accessibility of programs and collections to a culturally diverse public. It participates in national and international endeavors and fosters cooperation with other institutions in the arts and humanities.

This line-item includes the Office of Museum Programs, which provides training and research services to the museum profession worldwide; the Joseph Henry Papers Project, which researches and publishes the manuscripts of Joseph Henry, the first Secretary of the Smithsonian; and the American Studies Program, which conducts a graduate program in American culture, incorporating course work at the Smithsonian. As a result of the Institution's Restructuring Plan implemented in FY 1993, the Joseph Henry Papers Project will be merged with the Smithsonian Institution Archives. In addition, the Office of American Studies will be eliminated as presently constituted; it is most likely that this program will be merged into the National Museum of American History. The Institution will honor the Program's current agreements with cooperating universities.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Office of the Assistant Secretary for the Arts and Humanities. The Institution requires $47,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM:

I. Office of the Assistant Secretary for the Arts and Humanities - The Office of the Assistant Secretary for the Arts and Humanities (OASAH) works closely with museums, educators, and special committees to improve outreach programs, serve broader audiences, and plan and monitor new initiatives. It encourages improvements in accessibility throughout the Institution and new techniques in presenting programming for the public. OASAH administers six major programs: the National African American Museum Project, the Accessibility Program, the Special Exhibition Fund, the Collections Acquisition Program, the Integrated Curriculum Development Project, and the Experimental Gallery.

National African American Museum Project - During FY 1990, the Smithsonian Institution convened an Advisory Committee to determine the type of entity needed for interpreting African American history and culture; the possibilities for collaborations with existing cultural institutions, both within and outside the Institution; and the appropriate organizational structure for pursuing scholarship in African American material culture, an area that has been inadequately researched. In FY 1991, the Smithsonian's Board of Regents supported the Advisory Committee's recommendations that there be a freestanding African American museum on the Mall.

Accordingly, task forces, consisting of scholars from both within and outside the Institution, met and clarified the programmatic needs of the new museum. The task forces examined such issues as research, collections, development and marketing, administration, and facilities planning. The program and collections management plans as well as recommendations for acquisitions will be completed in FY 1993. Staff will continue to identify collaborators and resources and to update listings of key African American collections, professionals, and research efforts. They will also begin to define collaborative efforts with other institutions concerned with African American history and culture.

Accessibility Program - Established in January 1991, the Accessibility Program works to ensure that visitors and staff with disabilities have access to the Smithsonian's programs, exhibitions, and facilities. Toward this end, the program assumes a central coordinating role in the Institution, conducting training and evaluation as well as providing technical assistance to all Smithsonian bureaus and accessibility services to museum and Zoo visitors. In FY 1993, the Program initiated a pan-Institutional education program on accessibility. Lectures, workshops, and printed materials will inform both staff and visitors about museum responses to accessibility issues. The Program collaborates extensively with museums and other organizations across the country to improve accommodations for people with disabilities.

Special Exhibition Fund - In 1984, the Board of Regents established the Special Exhibition Fund to supplement Federal appropriations for exhibitions resulting from scholarly research in the various scientific, humanistic, aesthetic, technical, or interdisciplinary fields represented throughout the Institution. The Fund encourages interdisciplinary projects,

experimentation both in exhibition technique and in content, and evaluation of the public's response.

Collections Acquisition Program - In January 1978, the Board of Regents established a Trust-funded Acquisitions Program to supplement Federal acquisition monies, which were insufficient for museums to purchase important, but expensive, works of art. In recent years, the Program has broadened to include other disciplines and has encouraged acquisitions that represent diverse cultural perspectives.

Integrated Curriculum Development Project - As requested by Congress, the Institution has convened a task force, jointly organized by the Duke Ellington School for the Performing Arts and the Illinois Math and Sciences Academy, to explore the development of a curriculum based on the case study method that would successfully combine the arts, humanities, and sciences. The resulting curriculum will be piloted at both schools and later replicated on a national scale. An Advisory Council has been selected, along with task forces consisting of approximately five teachers from each school.

Experimental Gallery - The Experimental Gallery encourages innovation and risk taking in exhibit technique and style. It provides space for exhibit makers to create, innovate, explore, and experiment with the exhibition development process, audience access, exhibition context, and techniques and style, including design, material, and interpretive strategies. Current subject areas are multi-cultural exhibitions in the arts, humanities, and sciences and interactive exhibitions in the physical and natural sciences. The Experimental Gallery is now conducting an extensive evaluation.

II. Office of Museum Programs - The Office of Museum Programs (OMP) provides training and professional assistance in museum theory and practice to museums nationally and internationally. In FY 1992, OMP trained more than 250 museum professionals from the United States and abroad in all aspects of museum work. It expanded course offerings in its training programs for tribal communities, reaching more than 100 American Indian museums and cultural centers. The Office's internship program offered referral, registration, counseling, and career development services to more than 700 interns representing 252 Congressional districts.

III. Joseph Henry Papers Project - The Joseph Henry Papers Project conducts interpretive historical research on the life and times of Joseph Henry, a pioneer American physicist and the first Secretary of the Smithsonian Institution. It supports internal and external scholarly research on 19th-century American science and maintains the Alexander Graham Bell-Joseph Henry Library. In 1992, the Project published the sixth volume of the Henry Papers, which details Henry's experimentation in electricity and magnetism at the College of New Jersey (now Princeton University) and his election as the first Secretary of the Smithsonian. As a result of the Institution's Restructuring Plan implemented in FY 1993, the Joseph Henry Papers Project will be merged with the Smithsonian Institution Archives.

IV. American Studies Program - The American Studies Program sponsored a graduate program in American material culture in cooperation with various universities located in the Washington, D.C., area and in other cities. As a result of the Institution's Restructuring Plan implemented in FY 1993, the Office of American Studies will be eliminated as presently constituted; the Institution will honor the Program's current agreements with cooperating universities.

NONAPPROPRIATED SOURCES OF FUNDING:

I. Office of the Assistant Secretary for the Arts and Humanities:

Unrestricted General and Special Purpose Funds - These funds support the salary, benefits, and expenses of the Assistant Secretary, special assistant, and museum program specialist. In addition, transfers of unrestricted Trust funds support the Collections Acquisition Program, which facilitates the Smithsonian's purchase of major acquisitions, and the Special Exhibition Fund, which provides partial funding through a competitive process for important and innovative exhibitions throughout the Institution.

Restricted Funds - In FY 1991, the Office of the Assistant Secretary for the Arts and Humanities received a grant of $150,000 from the American Psychological Association to continue development of the Experimental Gallery.

II. Office of Museum Programs:

Unrestricted General and Special Purpose Funds - OMP receives an annual allotment to support travel and subsistence expenses of minority professionals attending OMP seminars. OMP has two revolving Trust funds: one for training tuition and one for an audio-visual loan and sales program, the proceeds of which offset expenses and fees. In addition, OMP has one Trust fund to support intern registration and administrative services.

III. Joseph Henry Papers Project:

Unrestricted General and Special Purpose Funds - Funds are available from the Smithsonian's Research Opportunities Fund to support research projects.

Restricted Funds - The Smith College Tuition Fund defrays travel and auxiliary support costs for staff, interns, and volunteers, as well as for stationery supplies. Support from the National Academy of Science pays for incidental programmatic items not otherwise funded, including journal subscriptions and additions to the Henry Papers research collections. A grant from the Ida Hornstein Reingold Memorial Fund supports the scholarly activities of the Joseph Henry Papers Project.

IV. American Studies Program:

Unrestricted General and Special Purpose Funds - The American Studies Program received tuition reimbursement from cooperating universities, principally George Washington University and the University of Maryland, College Park, whose graduate students took courses offered by the American Studies Program. The tuition reimbursement refunded the Smithsonian Institution for the use of its facilities by the students participating in Smithsonian classes and, in addition, provided honoraria and reimbursement for the services of outside experts participating in the program.

National Air and Space Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	249	11,500	3	253	46	4,430	1	2,149	3	502
FY 1993 Estimate	231	11,731	2	210	-	4,344	-	1,721	-	443
FY 1994 Estimate	230	11,972	2	210	-	4,619	-	1,716	-	271

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The mission of the National Air and Space Museum (NASM) is to memorialize the national development of aviation and space flight; collect, preserve, and display aeronautical and space flight equipment of historical interest and significance; serve as a repository for scientific equipment and data pertaining to the development of aviation and space flight; and provide educational material for the historical study of aviation and space flight. Within the broader mission, immediate goals of the Museum are to explore and present the history, science, technology, and social impact of aeronautics and space flight and to investigate and exhibit the nature of the universe and our environment. Current research, exhibitions, films, outreach, and collection and archival efforts are dedicated to these goals.

In addition to its Mall location, NASM maintains the Paul E. Garber Preservation, Restoration, and Storage Facility in Suitland, Maryland. The Institution is seeking authorization for the planning and design of an extension to replace the Museum's storage, restoration, and exhibit production facilities currently at the Garber Facility and to enable the Museum to care for its largest aircraft and spacecraft.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Air and Space Museum. The Institution requires $282,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of 1 workyear and $41,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The major programs of the National Air and Space Museum are historical and scientific research; exhibitions and films; collections development; preservation, restoration, and conservation of artifacts; publications; and education and outreach activities.

Research - The Museum is a primary resource center for research in the science and technology of aviation, space and geophysical science. NASM's Center for Earth and Planetary Studies (CEPS) serves as a repository for remote-sensing data. Researchers from CEPS, the University of New Hampshire, and the Czechoslovakia Academy of Sciences are collaborating to assess forest and soil damage due to acid deposition in mixed hardwood and conifer forests within Czechoslovakia.

The Laboratory for Astrophysics has developed a new generation of freestanding metal mesh reflectors for the Infrared Space Observatory (ISO) using new microelectronic fabrication techniques. These meshes exhibit unparalleled geometric precision, with line widths as small as 2.5 microns. Spectrometers on ISO and elsewhere equipped with these advanced reflectors will achieve new levels of sensitivity, making fainter astronomical objects accessible to spectroscopic study at infrared wavelengths.

Curators and historians in the Department of Space History are engaged in research on a wide variety of topics concerning the history of rocketry and space flight, including manned space exploration. Projects currently underway include the history of American science and technology during the height of the Cold War; biographies of the astronomer Henry Russell, physicists Lloyd Berkner and Ernest Lawrence; a study of government support for large-scale scientific enterprises; a history of the national weapons laboratories; and a history of the contributions of African Americans to aviation and spaceflight resulting in a new gallery called "Divided Skies".

Research continues in the Aeronautics Department on a study of the air war in Vietnam that will result in an exhibition; a history of the events surrounding the dropping of the atomic bomb on Hiroshima from the B-29 Enola Gay in 1945; a study of commuter airliners; and aspects of Soviet aviation history.

NASM's research staff contributes to educational outreach efforts, especially at the elementary school level, presenting public programs and lectures worldwide, often in conjunction with exhibitions and films.

Exhibitions and Films - "Legend, Memory, and the Great War in the Air," an exhibition that opened in FY 1992, examines the evolving role of the airplane during World War I and contrasts the romantic myth of aerial combat with the air war's grim reality. In addition, a World War II commemorative exhibition opened that will feature a different aircraft and its role in the war, each year through 1995. Currently on exhibit is the P-47 Thunderbolt. The "Star Trek" exhibit, based on the television series of the 1960s, examined the historical, political, social, and cultural issues and themes of that era. More than 80 original props, models, and costumes used in the creation of the original series were featured, as well as a short documentary film. Almost 900,000 visitors viewed this exhibition, which commemorated the 25th anniversary of the debut of the extremely popular program. "Where Next, Columbus?" which opened in FY 1993, examines space exploration during the next 500 years and the prospective roles of both manned and robotic missions.

Blue Planet, the Museum's newest IMAX film, examines the global environment as seen from space and the effect of natural and man-made forces on the Earth. Since its premier in November 1990, it has been seen by more than 10 million people. Destiny in Space, currently in production and scheduled to premier in June 1994, will examine the future of human and robotic exploration of space. Cosmic Voyage is currently in the script development and fund-raising phase. This film will use the most advanced computer animation and special effects to take viewers on a journey across the entire range of space and time scales known to science.

In FY 1992, "Exploring New Worlds" premiered in the Albert Einstein Planetarium. The show, in keeping with the Smithsonian-wide observance of the Columbus Quincentenary, looks at past, present, and future explorations of this world and others. It is an attempt to explain what compels our species to explore its surroundings--from the extremes of the subatomic world of elementary particles to the ultramacroscopic structure of the universe.

Collections Development - The Museum's Archives received increased requests in FY 1992, particularly for photographic services. Archives and curatorial staffs are currently working on a collecting plan for the Museum. Due to a lack of storage space, a temporary moratorium was placed on collecting archival material during FY 1992. The NASM Collections Committee has encouraged curators to become increasingly selective as they consider additional artifacts. As a result, the number of new objects received has dropped significantly. The number of artifact loans has, however, increased as NASM shares its collections with other museums. A series of new loans has been initiated whereby qualified museums fund the restoration of an object in the NASM collection in exchange for a longer-term loan of the object.

Preservation, Restoration, and Conservation of Artifacts - NASM recently refurbished several aircraft so that they could be installed in exhibitions or loaned to other museums. The Spirit of St. Louis was lowered from the ceiling, cleaned, and thoroughly inspected in view of the public and then it was rehung. Other major accomplishments in FY 1992 include the ongoing restoration of the Enola Gay, which will be completed in 1995; treatment of several large World War II aircraft; preservation of the C-130 and Super Constellation aircraft stored outdoors at Dulles; and construction of a temporary structure for the SR-71 Blackbird. The Museum has documented poor storage conditions at the Garber Facility, and is using this information to develop a repair schedule. In FY 1992, the conservator oversaw the construction of a new conservation mannequin that will preserve spacesuits currently on exhibit.

Publications - As a part of the Smithsonian's Columbus Quincentenary celebration, NASM published Looking at Earth, a general audience book that contains more than 190 images and mosaics of the Earth's surface collected by a wide range of international spacecraft and sensors. Other books published in FY 1992 are the Boeing 247: The First Modern Airliner, which traces the development of this aircraft and its impact on the first days of commercial transcontinental passenger service and the exhibition catalogue for the World War I exhibition "Legend, Memory and the Great War in the Air." Recent additions to the

Smithsonian History of Aviation series include Michael H Gorn's The Universal Man: Theodore von Karman's Life in Aeronautics.

Education Outreach Activities - Several new initiatives are aimed at increasing visits to the Museum and participation in public programs by a culturally diverse audience. NASM encourages local school systems to bring youngsters to the Museum for programs featuring minority astronauts or military and civilian aviators who can serve as role models. The pilot program "Learning as a Family Experience" brings students, their families, and their teachers to the Museum after public hours for demonstrations, tours, short talks, and an IMAX film. Teachers participate in workshops prior to the evening event and receive free curriculum materials from the Education Resource Center. Another program trains minority students to perform demonstrations in the Museum's galleries on the principles of aviation and space flight. These programs help young people gain insight into the principles of flight while also building their self-confidence and experience in making public presentations.

A thirteen-part television series "Smithsonian Frontiers of Flight," aired on the Discovery Channel in September of 1992.

In FY 1992, NASM cooperated with the embassies of Norway and Iceland to sponsor a symposium on the history of exploration and the possibility of human colonization of space. The queen of Norway and the president of Iceland attended this event. The panel discussion included such noted explorers as Thor Heyerdahl and Michael Collins.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from a variety of sources, including the Museum's share of net proceeds from the museum shops and restaurants, a share of the net proceeds from bureau activities (such as the theater and planetarium), and annual allotments. In addition to meeting expenses of the theater and planetarium and support costs of the director, these funds finance fellowships, research chairs, guest lecturers, symposia, conferences, and special public events. A portion of the proceeds from the theater and planetarium support the production of new IMAX films, including Blue Planet, Destiny in Space, and Cosmic Voyage. The Museum also receives outside support for these films.

The Lindbergh Chair of Aerospace History and the International Fellowship provide continuing support for distinguished scholars to study at the Museum. Other fellowship programs include Guggenheim, Verville, Embry Riddle, and Martin Marietta internships, which support pre- and postdoctoral students, multi-cultural students, and distinguished scholars in aviation and space science.

Restricted Funds - These funds provide restricted endowments that specify their use. Examples of these funds are the Lindbergh Chair for aviation research, the Ramsey Endowment for research relating to naval flight history, and the Guggenheim Endowment for lectures and stipends. NASM receives numerous corporate donations, both monetary and in-kind, to support

collections management, the Laboratory for Astrophysics, various educational programs, exhibits, publications, the Embry Riddle Internship Program, public science demonstrations, the Exploring Space lecture series, and the General Electric Aviation lecture series. A children's corner in the upcoming "How Things Fly" gallery and the restoration of the Enola Gay have been partially funded by contributions from individuals.

Federal Grants and Contracts - The National Aeronautics and Space Administration (NASA) is the primary source of Federal grants to NASM. Continued funding from the NASA grant program supports research activity in planetary geology by the Museum's Center for Earth and Planetary Studies, including photogeologic investigation of planetary tectonic features, the structural geology of the Basalt Plains of Washington State, the geographic mapping of Mars, and the Planetary Image Facility. In FY 1992, NASA partially funded a research project to study forest damage in Czechoslovakia due to the effects of air pollution. Geologic investigations in the Earth's drylands and global environmental change research are supported by a Smithsonian Institution Scholarly Studies grant, a Becker Foundation grant and a grant from NASA's Earth Sciences Program. A grant from the National Science Foundation supports undergraduate interns who wish to gain research experience by participating in ongoing investigations at the Center.

NASA also sponsored a NASM staff member as a mission scientist on the European Space Agency Infrared Space Observatory. The Laboratory for Astrophysics continues to receive funding from NASA for ongoing research in infrared astronomy.

National Museum of American History

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	340	18,268	1	175	9	1,608	2	3,181	-	579
FY 1993 Estimate	372	18,484	1	184	9	950	2	2,873	-	-
FY 1994 Estimate	367	18,261	1	184	9	975	2	5,290	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Museum of American History (NMAH) is an educational institution dedicated to understanding the experiences and aspirations of all the American people. Through collections, research and publications, exhibitions, and an array of public programs, with a special emphasis on musical performance, the Museum preserves and interprets the national heritage for scholarly and general audiences. Its collections of artifacts, numbering in the millions, together with its extensive archival holdings and the National Numismatic Collection, represent the social, cultural, scientific, and technological development of the United States and constitute one of the most comprehensive history collections in the world. The National Museum of American History also administers the National Postal Museum (NPM). In all of its endeavors, NMAH makes a special effort to recognize the diverse aspects of American culture and to present that diverse culture to audiences on the Mall and far beyond.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Museum of American History. The Institution requires $301,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of 5 workyears and $524,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The National Museum of American History investigates, collects, preserves, interprets, and honors the heritage of the American people through original research, publications, exhibitions, and public programs designed to increase the understanding of American history.

National Postal Museum: Under the terms of an operating agreement between the Smithsonian and the U.S. Postal Service, the National Postal Museum has been established to serve as the nation's premier center for public education and scholarship on philately and postal history through the use of its extensive collections and research library. Scheduled to open in July 1993, the National Postal Museum is located in the former City Post Office building, situated at Massachusetts Avenue and North Capitol Street and adjacent to Union Station. The new facility will house and preserve the Smithsonian's National Philatelic Collection, previously located at NMAH, which is unsurpassed in its comprehensive holdings of United States and world philately and postal history. The NPM will also establish a liaison with the postal museums of other countries on a national level.

The National Postal Museum will serve a projected 1.5 million visitors annually with public programs, educational activities, and exhibits designed to furnish an orientation to the operation, purpose, and importance of the postal system. The Museum will enable visitors and scholars to find a constantly changing array of interpretive and educational programs. Tours, seminars, and routine presentations will be scheduled. Offerings of the NPM are expected to include annual philatelic fellowships, visiting research scholar programs, dedicatory stamp lectures, and special philatelic and postal history publications.

Collections Acquisition - In FY 1992, the Museum received a number of significant objects through purchases and gifts. The Museum acquired the rare 1787 Genard printing press, which helped set the course for American and British printing 30 years later. Another very rare and important acquisition was the 1929 model "91" Miller racing car built by celebrated and innovative racing car designer Harry A. Miller. Mrs. Tom Thumb's (Lavinia Warren Bumpus) sewing machine and elaborate miniature cabinet, decorated with six panel paintings depicting her 1863 wedding to Tom Thumb (Charles Stratten), was an unusual textiles-related acquisition. The musical history collections were enriched by a 19th-century lady's worktable with piano, a rare 19th-century melodeon, and Irving Berlin memorabilia. The Museum also acquired nearly 200 World War II escape and evasion materials from the U.S. Army's secret MIS-X service, and the physical sciences collections were enhanced by important artifacts related to fluorine chemistry work crucial in building the atomic bomb as part of the Manhattan Project.

Collections Management - In FY 1992, collections management staff made considerable progress in reducing documentation backlogs, particularly in the armed forces, numismatics, and community life collections. Planning, training, and data base testing in FY 1992 will result in initial versions of the comprehensive Collections Information System (CIS). The Museum strengthened its inventory program by the transfer of central batch records to the NMAH minicomputer and the development of a prototype statistical sampling program. The staff also began a nationally emulated multi-year effort to document unclaimed loans.

The collections management staff also concentrated on supporting building renovation work. Specialists relocated more than 11,000 objects within NMAH or transferred them to off-site storage at the Fullerton Industrial Park in Springfield, Virginia. NMAH moved more than

5,000 objects from seven curatorial divisions into the Museum Support Center. Beginning in late FY 1993, the Museum will share a new collections storage building at the Institution's Suitland Facility with the National Air and Space Museum, while one asbestos-contaminated and two deteriorated storage buildings undergo renovation over the next five years. The staff has finished moving 12 million philatelic and postal history objects to the new National Postal Museum which staff occupied in October, 1992.

The Department of Conservation's new Costumes, Textiles, and Fragile Organics Laboratory, including a collections rehousing section, began operations in FY 1992. The staff treated 86 gowns, costumes, and other textile objects for two major exhibitions and treated and rehoused 45,000 fragile paper items.

Research and Publications - Much of the Museum's research activity complements the Museum's ambitious exhibition schedule. In FY 1992, research took place on the following exhibit topics: science in American life, including development of academic chemistry, industrial research, genetic engineering, and study of the environment; everyday life in 19th-century America, including industrialization and labor, immigration, African American communities, and westward expansion; children's printing presses; and pressed glass.

Long-term staff projects that will result in a variety of publications and public programs include histories of the information age; the Tennessee-Tombigbee waterway; agriculture in Virginia; public health nursing; the American soldier in World War II; oral history studies of NIKE advertising and Kraft Television Theater; African American sacred songs and worship traditions; political excitement in America, 1830-60; consumerism; culture and politics in 18th-century America; and a reappraisal of the history of photography in America.

The Museum maintains an active program of research on its collections. These efforts produced nearly 100 publications in FY 1992. Fine examples include a richly illustrated book on the evolution of electioneering and a book about women in American Indian society.

Exhibitions - The Museum opened 14 new exhibitions in FY 1992, ranging in size from a single case to a 7,800-square-foot show. Of special note are two new permanent exhibitions. Using the historic gown collection as its centerpiece, "First Ladies: Political Role and Public Image" explores the roles and accomplishments of America's First Ladies and the public's expectations and perceptions of them. "American Encounters," the Museum's major Columbus Quincentenary show, examines the cultural interactions of American Indians, Hispanics, and Anglo Americans in New Mexico over the past 500 years.

In October, 1992, the Museum opened, "Personal Legacy: The Healing of a Nation," an exhibition commemorating the 10th anniversary of the Vietnam Veterans Memorial in Washington, D.C. It will remain on view through June, 1994 due to public response.
In April 1994, the exhibition "Science in American Life" will open for public viewing. This exhibition will explore how chemistry and the physical and biological sciences have affected society and how society has influenced the pursuit of science.

Opening on July 30, 1993, the National Postal Museum will use 22,000 square feet of exhibit space and an active outreach program to educate the public about the history and the importance of the U.S. postal system and stamps. Displays will show the role the postal system played in binding the nation together and encouraging the development of transportation and commerce. Visitors will use interactive devices to learn how modern technology processes the mail. Exhibits will showcase the philatelic treasures of the Smithsonian.

Work progresses on the Museum's Master Plan to renovate the building and reinstall its exhibitions. By May 1993, Phase IVa, which includes the last of the exhibition galleries, will be complete, and work will resume in storage and office areas.

Public Programs - In FY 1992, the Museum developed and presented more than 150 educational activities, publications, forums, special events, and performances to increase public understanding of America's heritage. Many of these educational outreach efforts focused on the Columbus Quincentenary by exploring the interrelationships among American Indian, Hispanic, Anglo American, and African American cultures in the Americas. Examples of the Museum's Quincentenary programs are "Good as Gold," a three-day public symposium on food exchanges among Europe, Africa, and the Americas; "Will the Circle Be Unbroken?" a three-day scholarly conference on the African diaspora; and "American Encounters," a series of free concerts featuring Hispanic and American Indian music from New Mexico, presented in conjunction with the exhibition of the same name.

The Museum also initiated a pilot Youth Interpreters Program, through which high school students learn to be teachers and demonstrators in exhibitions. In the Spring of 1994, NMAH will target teenage audiences with live interpretation throughout the Museum.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - This funding is from various sources, including the Museum's share of museum shop, photography shop, and cafeteria sales; publication royalties; and various annual allotments. In FY 1993 and FY 1994, these funds will support the salary and benefit costs of the museum director and the Museum's unique chamber music performance and recordings program.

Restricted Funds - The principal sources of income for these funds are individual or corporate gifts and foundation grants provided for specific purposes. In FY 1992, significant gifts were received from a variety of corporations and foundations to fund oral history, documentation, and exhibit projects on advertising.

Gifts and grants are the major source of funding for new exhibitions. Major grants have been received from the American Chemical Society and the Occidental Chemical Corporation to support a major exhibition on "Science in American Life," scheduled to open in 1994, and its educational programs. The Timex Corporation has pledged a major gift in support of the renovation and reinstallation of the permanent hall of timekeeping and clocks. The MICO

corporation has entered into an agreement to sponsor an exhibition and music program for an "American Festival" to be held in Japan in the summer of 1994. The program will be designed to present the unique heritage and cultural identities of the people of the United States to the Japanese audience. Pitney Bowes has given a generous gift in support of the new National Postal Museum. Other gifts in support of exhibitions are from the Computerworld Information Technology Awards Foundation, Inc., to support the exhibition "The Information Age"; from Beyond the Wall, Inc., to support an exhibition on Vietnam War memorabilia; and from the Hearst Corporation to support the opening of the "First Ladies" exhibition.

In FY 1992, significant gifts were received to support publications. The Richard Lounsbery Foundation and the Susan and Elihu Rose Foundation gave generous gifts to produce a magazine for children on American history. The Museum also received funding from Eastman Kodak for a book on the history of photography, from Good Humor Ice Cream for a brochure on the history of ice cream, from Avery Faulkner for a book on historic Washington, D.C., from the Arcadia Foundation for the installation of a Wurlitzer Organ, and from Western Publishing Company for research on the history of American Children.

Generous unrestricted gifts in support of Museum programs came from Pharmacy World Congress '91, the Laurel Racing Association, Morgan Stanley Realty, Inc., Gavel International Corporation, Dennis Trading Group, IVI Travel, the Research Board, AFMAC's Resort Co., and the Bank of America.

Federal Grants and Contracts - The Department of the Army has provided a planning grant to assist development of a joint exhibit between the Smithsonian and the Russian Academy of Sciences on the history of the cold war. The exhibit will concentrate on the nuclear arms race, missile race, and the space race.

National Museum of the American Indian

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	75	8,193	-	172	-	102	-	-	-	-
FY 1993 Estimate	147	11,422	1	190	-	84	-	200	-	-
FY 1994 Estimate	177	11,502	1	190	-	83	-	200	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Museum of the American Indian (NMAI), established in 1989 by P.L. 101-185, recognizes and affirms to Native communities and the non-Native public the historical and contemporary cultures and cultural achievements of the Native peoples of the western hemisphere through development and use of its collections and nationwide public programming, research, and exhibitions executed in consultation with Native peoples. NMAI operates planning and administrative offices in Washington, D.C., the former Museum of the American Indian at Audubon Terrace in New York City, and a Research Branch located in the Bronx, New York. This Research Branch houses curatorial offices, a conservation laboratory, and most of the Museum's one million objects. In 1994, a new exhibition center in New York City will open at the George Gustav Heye Center at the Alexander Hamilton U.S. Custom House. Future facilities will include a reference, collections, and program support center at Suitland, Maryland, and a museum building on the Mall. Additionally, NMAI will develop a nationwide program of training and outreach services for Native communities in consultation with Native Americans.

For FY 1994, the Smithsonian seeks to retain base funding for the National Museum of the American Indian related to one-time costs associated with the furnishings and equipment for the New York Custom House facility ($800,000) and the National Campaign Office ($44,000). The retained funding will support necessary costs for the operation of the Custom House, including security (16 workyears and $216,000); mechanical systems maintenance and utilities (5 workyears and $417,000); and building maintenance support (7 workyears and $87,000). In addition, this funding will provide essential staff for the design and construction management for the Museum's Washington, D.C. and Suitland facilities (2 workyears and

$124,000). The Institution requires $80,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Museum of the American Indian, Heye Foundation, located in New York City, opened its doors to the public in 1922. On June 24, 1990, the collection was transferred to the Smithsonian Institution to form the base of the National Museum of the American Indian. The collection, which was initiated near the turn of the century, is one of the world's richest assemblages of artifacts of the indigenous cultures of the western hemisphere. In collaboration with Native Americans, the new Museum will advance knowledge and understanding of these cultures, including their art, history, and languages. Through innovative public programming, research, and collections management, the Museum will recognize its special responsibility to protect, support, and enhance the development and perpetuation of Native cultures and communities.

Facilities Planning - During FY 1992, numerous Native American consultants, various technical advisors, and NMAI and Smithsonian staff completed the programmatic definition and initial space allocations for the museum on the Mall and the support center in Suitland, Maryland. Together these buildings will provide levels of collections care and public access not possible in current facilities and generate the ambitious outreach programs and services planned for Native American communities and organizations. Planning has aimed to accommodate traditional object care requirements and to provide for access to the collections and related information by all people. Planning is now completed for the George Gustav Heye Center in New York, and construction began in September 1992. NMAI staff has also finalized lease arrangements with the General Services Administration for operations in the Alexander Hamilton U.S. Custom House building. In January 1993 the design phase of the Suitland facility began. The selected architect for the Mall Museum was recently announced.

Exhibitions and Public Programs - During FY 1992, NMAI completed work on "Pathways of Tradition," an exhibition that opened in mid-November 1992, in the rotunda of the Alexander Hamilton U.S. Custom House as a prelude to the 1994 grand opening of the George Gustav Heye Center. The exhibition, made possible with funding provided for this purpose in FY 1992, presented objects selected by Native Americans coupled with first-person commentary. During its two and one-half months it provided the Museum both educational and fund-raising opportunities.

Design and production of the four 1994 opening exhibitions at the George Gustav Heye Center continued during FY 1992 and will continue through FY 1993. "All Roads Are Good" will represent the breadth of the collection through objects selected by 28 Native Americans that offer multiple perspectives. Issues surrounding the relationship of contemporary Native American artists to their traditional past will be explored in "Celebrations," in which 25 Native American artists, each specializing in a different art form, are collaborating on a single installation. The third exhibition, "Living Treasures," consisting of contemporary Native American painting and sculpture, has been organized by the Heard Museum in Phoenix and will be accompanied by ancillary educational material developed by NMAI. The final exhibition

will orient the visitor to the Native American history of the lower Manhattan area and the history and architecture of the Custom House. The staff is also continuing to plan the public programs that will accompany these inaugural exhibitions and the exhibitions that will follow.

For "Pathways of Tradition," the staff scheduled an Indian Dance Festival and collected articles on Native American dance which was published in the fall of 1992. Other publications under development include a book highlighting NMAI collections and a study of Navajo weavings. The staff also helped organize a program of contemporary music of Native America for the 1992 Smithsonian Festival of American Folklife.

Outreach Services - NMAI's primary emphasis in outreach in FY 1992 was to build staff capacity to broaden services. After a nationwide search, the Museum filled the vital position of assistant director for public programs with a Native American who has two decades of experience in exhibitions, writing, and management of Native American cultural centers and museums. The Museum hired a field consultation assistant who, aided by Native American representatives, will recommend museum policy and planning. The Museum also provided regional workshops for Native Americans run by the Smithsonian's Office of Museum Programs. Development of training and other outreach services remains a high goal for the new assistant director for public programs. A discussion with representatives of several Latin American nations in July 1992 helped advance plans for international programs based on NMAI collections.

Collections Management and Access - In FY 1992, the Institution installed and began use of a conservation laboratory in the 3,000-square-foot annex to the New York Research Branch that will help serve urgent collection needs. These facilities and the addition of two conservators are supporting preparations for 1994 exhibitions, collections photography for related publications, and planning for the relocation of collections exhibited and stored at the Audubon Terrace facility to the Research Branch in FY 1993. The curatorial staff worked with NMAI board committees and outside specialists to develop a comprehensive collections policy, approved by the board in the fall of 1992. Research and negotiations resulted in substantial progress on an important repatriation request from Alert Bay/Cape Mudge, British Columbia. Individual collections research projects are proceeding on Navajo textiles, the documentation of the Apache collections, and a data base for NMAI's more than 100,000 photographs. In FY 1993, the Museum is establishing a repatriation office to produce inventories and additional documentation responsive to National, Smithsonian, and the Museum's repatriation policies. The office will play a leadership role in nationwide repatriation activities.

Collections management staff will begin in FY 1993 to consolidate the New York collections at the Bronx facility and begin to prepare them for relocation to the Washington facilities. Because of the severe overcrowding of staff and collections, NMAI will acquire and outfit several trailers at the Bronx facility to permit the work of collections management programs to proceed.

National Campaign - The NMAI National Campaign staff completed the first full year of operation in 1992. The staff is following a detailed and extensive fund-raising strategies plan adopted by the Smithsonian's Board of Regents in September 1990, with a planning goal of $60 million. This goal includes the one-third share of the construction costs of the Mall museum, as well as support for the Museum's outreach and educational programs. Toward this goal, as of February 1993, the Campaign had raised $7,660,537 from individuals, foundations, and corporations through direct solicitations, proposals, and proceeds from special events. The Campaign held several fund-raising events in New York City in conjunction with the November 1992 preview exhibit, "Pathways of Tradition."

The membership program component of the Campaign is building a broad-based constituency for long-term support of the Museum. By February 1993, approximately 62,000 persons had joined the Museum. The National Campaign estimates that 80,000 to 100,000 individuals will eventually join the Museum's membership program. In addition, the Campaign established an Honorary Committee for the Campaign and is recruiting a volunteer leadership group, the International Founders Council.

EXPLANATION OF PROGRAM CHANGE - For FY 1994, the Smithsonian seeks to retain base funding for the National Museum of the American Indian related to one-time costs associated with the furnishings and equipment for the New York Custom House facility ($800,000) and the National Campaign Office ($44,000). The retained funding will support necessary costs for the operation of the Custom House, including security (16 workyears and $216,000); mechanical systems maintenance and utilities (5 workyears and $417,000); and building maintenance support (7 workyears and $87,000). In addition, this funding will provide essential staff for the design and construction management for the Museum's Washington, D.C. and Suitland facilities (2 workyears and $124,000). The Institution requires $80,000 for Necessary Pay for existing staff funded in this line-item.

Security for the New York Custom House (16 workyears and $216,000) - The Smithsonian currently anticipates that it will receive beneficial occupancy of the New York Custom House facilities for the National Museum of the American Indian's George Gustav Heye Center in the spring of 1994, with public opening of the Heye Center currently scheduled for the fall of 1994. With funding provided in FY 1991 and FY 1993, OPS will hire five guard positions to provide security during the final stages of construction. For FY 1994, OPS will need to hire 16 additional guards to provide necessary protection following beneficial occupancy and during the preparation of the inaugural exhibitions. It is anticipated that funding to complete the permanent guard force for the Custom House will be requested in future years.

Full-year funding for these 16 positions equals $432,000. Consistent with the current construction schedule, OPS will use the FY 1994 funding to hire these guards in April 1994 ($216,000). (Additional funding of $216,000 will be required in FY 1995 to annualize the partial-year funding for these positions.) Hiring in this manner will ensure adequate security

coverage of the new facility, consistent with the level of staff activities and public access to the George Gustav Heye Center.

Mechanical Systems Maintenance for the Custom House (5 workyears and $417,000) - Effective and efficient building operations and maintenance are essential for preserving the collections of the National Museum of the American Indian and providing a safe and healthy environment for staff and the visiting public. The planned opening of the George Gustav Heye Center in the United States Custom House will more than double the square footage of NMAI space in New York. The Office of Plant Services (OPlantS) will operate the facility 24 hours a day to ensure the constant and correct temperature and humidity required to preserve museum collections in the building. OPlantS staff also will perform preventive maintenance and emergency repairs and minor repairs to building components consistent with its operations at other Smithsonian museums. The requisite skills are not currently available among NMAI employees.

The FY 1994 funding will allow OPlantS to hire five air conditioning equipment mechanics at the beginning of the fiscal year (5 workyears and $223,000). The mechanics, including one leader, will provide continuous operation of the heating, ventilating, and air conditioning systems in the building. The request also includes funding to cover estimated utility costs for the Custom House following beneficial occupancy in the spring of 1994 ($194,000). (Additional funding of $194,000 will be required in FY 1995 to annualize the partial-year funding for these utility costs.) The requested resources will ensure continuous operation of NMAI facilities and protect the capital investment in plant equipment.

Custom House Program Support (7 workyears and $87,000) - The Custom House facility of the National Museum of the American Indian will have a well-rounded exhibition and education program. When opened to the public in the fall of 1994, the Heye Center is expected to serve local and national audiences much larger than those served by the current facility of the Museum of the American Indian, Heye Foundation. The increased attendance will require adequate support for building maintenance. For FY 1994, the Museum will need to hire seven building management positions to maintain and keep clean the public and staff areas of the George Gustav Heye Center in the Custom House.

Full-year funding for these seven positions equals $174,000. Consistent with the current construction schedule, NMAI will use the FY 1994 funding to hire these positions in April 1994 ($87,000). (Additional funding of $87,000 will be required in FY 1995 to annualize the partial-year funding for these positions.) Hiring in this manner will ensure adequate building management services for the new facility, consistent with the level of staff activities and public access to the George Gustav Heye Center.

Design and Construction Management (2 workyears and $124,000) - During FY 1994, the final stages of construction of the New York Custom House facility will involve many small, last-minute construction and exhibit changes that can be managed quickly and efficiently only by in-house staff. In addition, design for both the Mall Museum and the Suitland Facility will be

under way. High-quality design will ensure that the Museum, the public, and the National Collections enjoy the best possible conditions and avoid costly remedial work to facilities in the future. Two additional positions for an architect and an engineer (2 workyears and $124,000) are essential for successful implementation and completion of the building program of the new National Museum of the American Indian. Their primary responsibilities will be helping administer service contracts for design, reviewing design and constructibility at both the Mall museum and Suitland storage facility, overseeing repair and restoration of the Research Branch facility in New York City, and facilitating exhibit design and construction projects at the Custom House in New York City. The FY 1994 funding will allow the Institution's Office of Design and Construction to hire these two positions at the beginning of the fiscal year.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Smithsonian has established allotments to cover salary and support costs for the NMAI director and the Trust portion of the National Campaign costs, including one position's salary and support costs. In addition, the Institution established an unrestricted special purpose account to receive income from the National Museum of the American Indian's Campaign, which began in January 1991. The NMAI currently receives income from museum shop sales, admissions, and donations. Investment income will be available from the permanent endowment of the Heye Foundation, which was included in the property transfer.

National Museum of American Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	122	7,303	1	188	-	1,130	-	1,632	-	-
FY 1993 Estimate	129	7,690	1	166	-	666	-	1,564	-	-
FY 1994 Estimate	127	7,777	1	166	-	813	-	1,286	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Museum of American Art (NMAA) seeks to represent the finest achievements of American visual artists working in painting, sculpture, the graphic arts, photography, and crafts. The Museum presents diverse art from all regions, traditions, and cultures in America, including folk as well as fine art, through major exhibitions and related educational programs for public and scholarly audiences. The Museum fosters research nationwide through fellowship and intern programs, and it maintains automated data base inventories as a resource for American art scholars. The scholarly staff publishes new research in books, articles, and catalogues for the purpose of underscoring the relationship of art and history. The Renwick Gallery, part of the National Museum of American Art, focuses on American crafts and decorative arts.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Museum of American Art. The Institution requires $146,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of 2 workyears and $59,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The National Museum of American Art explores the contributions of the Nation's artistic heritage from the 18th century through the present. Through a multi-faceted program of acquisitions, exhibitions, research, publications, and education, the Museum presents and interprets American art for a broad and diverse public.

Collections - The Museum's collections, numbering more than 36,500 objects, encompass paintings, sculpture, graphic art, photography, and folk art from the 18th century to the present and contemporary crafts. In FY 1992, the Museum acquired John Singleton Copley's 1763

Portrait of Mrs. Watson, the first work by the country's most important colonial artist to enter the collection. The 19th-century collections were enhanced by the acquisition of The Concord Minute Man of 1775, a bronze sculpture by Daniel Chester French. Works by Grant Wood, Andrew Wyeth, and Joseph Cornell added important dimensions to the 20th-century collections. The photography collection was dramatically expanded by the addition of groups of photographs by Roy DeCarava and Aaron Siskind, while works by Felipe Archuleta, Eluid Martinez, Martin Ramirez, and Alex Maldonado were important additions to the Museum's folk art collection. A walnut bench by George Nakashima, two ceramic works by Betty Woodman, and a group of turned wood bowls by various craft artists, including Bob Stocksdale and Bruce Mitchell, were added to the Renwick's collection of contemporary American crafts.

Exhibitions - Among the 13 exhibitions on view during FY 1992 at the Museum and its Renwick Gallery, several drew considerable attention and national press coverage. "Homecoming: William H. Johnson and Afro-America, 1938-1946," drawn primarily from the Museum's collection, presented the work of one of America's leading African-American painters. In "Between Home and Heaven: Contemporary American Landscape Photography," the Museum's recently acquired collection of contemporary landscape photography was unveiled and a national tour organized. "Chicano Art: Resistance and Affirmation, 1965-1985" surveyed the work of more than 90 contemporary Mexican-American artists. The Museum also presented the first retrospective exhibition of the works of Romare Bearden, a highly respected African-American artist. The Renwick Gallery featured the jewelry of Albert Paley and the baskets of John McQueen. To celebrate its 20th anniversary, the Renwick opened an exhibition of its permanent collection. In addition, the Museum's touring exhibition program sent seven exhibitions from the collection to 14 cities throughout the United States.

The Museum also initiated a program to reinstall and reinterpret its permanent collection. NMAA reconfigured galleries to more prominently feature the Museum's collections of folk art and western art. Three magnificent Thomas Moran paintings received new reproduction frames, based on photographs of originals from 1872 and 1893. Educational labeling and handouts now offer significant contextual and historical information about the collections.

Projected exhibitions under development include "Revisiting the White City: American Art at the 1893 World's Fair," which will open in April 1993 and will present the finest achievements of America's visual artists during the late 19th century. This quincentenary exhibit is a co-sponsored exhibition with the National Portrait Gallery (NPG). An exhibition of the paintings of Thomas Cole will explore the artist's major social and artistic concerns, while "American Wicker," at the Renwick will offer the first serious study of this important medium in American furniture.

Research - The Museum combines programs for professional training and scholarship with resources for advanced research. In FY 1992, the Museum solicited comment and opinion from more than 75 scholars, librarians, educators, and museum professionals and prepared a

five-year plan for the Research and Scholars Center. Implementation of the plan begins in FY 1993.

The fellowship program hosted 12 pre- and postdoctoral fellows and 11 visiting scholars from across the United States and abroad in FY 1992. Now in its fifth year, the Charles C. Eldredge Prize for outstanding scholarship in the field of American art was awarded to Dr. Richard P. Wunder for his publication on the Vermont sculptor Hiram Powers. The intern program sponsored 32 graduate and undergraduate students during FY 1992, including five minority, foreign, and disabled students.

Research resource material continued to grow and improve in FY 1992. The Museum's newest research data base project, Save Outdoor Sculpture, completed pilot surveys in Illinois, Tennessee, and West Virginia. Agencies in 18 states began surveys, and another 27 sites will begin surveys in FY 1993. The Museum improved access to the Inventory of American Paintings by a series of user guides and an agreement to make the data base available through the Canadian Heritage Information Network. The library, shared jointly with NPG, acquired 4,500 volumes, including a collection donated by the Berryman Foundation and another gift of a major collection of caricature books. The photographic archives added another 10,000 images from the Peter A. Juley and Son Collection.

Publications - Such preeminent scholars and artists as Robert Coles, Chuck Close, and Joyce Carol Oates contributed articles in 1992 to the Museum's scholarly journal, American Art.

Several books have been published or are now in production. Between Home and Heaven: Contemporary American Landscape Photography, Revisiting the White City: The World's Fair at the 1893 Chicago Exposition, American Wicker, and Free within Ourselves all accompany new exhibitions. Several other books will showcase various aspects of the NMAA collections including a book of 350 portraits of American artists from the Juley Collection, a coloring book, an anthology of poetry and art, and a book featuring portraits of women.

American Art received an award of distinction in the American Association of Museums publications competition, as did Li'l Sis and Uncle Willie, a children's book accompanying the William H. Johnson exhibition, and a postcard book from "Between Home and Heaven: Contemporary American Landscape Photography."

Education - Plans are currently under way for a nationwide outreach program including videos and curriculum materials to provide students throughout the United States with education about their artistic cultural heritage. Continued intensive efforts to reach a wider audience through outreach initiatives and interpretive programming have greatly increased participation in Museum events by African Americans, Hispanics, Asian and Pacific students and adults. The video and accompanying curriculum material produced for the William H. Johnson exhibition drew 8,500 students and teachers for guided tours. The annual celebration of Chinese New Year on the Museum steps continued and brought increased attendance.

The Museum sponsored films, lectures, teacher workshops, and a reception for the Congressional Hispanic Caucus for the exhibition "Chicano Art: Resistance and Affirmation, 1965-1985," attracting far-reaching public response. A high school photography contest held in conjunction with the exhibition "Between Home and Heaven: Contemporary American Landscape Photography" concluded with an exhibition of 100 of the finalists' works and a reception for the students and their parents and teachers.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An annual allotment supports the cost of the director's salary and the Museum receives a portion of Museum shop sales. The Museum's Exhibition Sharing Fund, which generates income through fees charged to borrowers of touring exhibitions, financed the 1992 tours of seven exhibitions to 14 locations in the United States. Royalty income from museum publications was used to partially underwrite the costs of scholarly catalogues. The Smithsonian Institution's Special Exhibition Program provided funding for the Chicano Art exhibition and planning funds for several future exhibitions.

Restricted Funds - Private support of NMAA programs, especially exhibitions and publications, are increasingly important to accomplishing the Museum's goals. In FY 1992, gifts from UCLA and C&P Telephone provided funding for the educational programs associated with the Chicano and William H. Johnson exhibitions. A grant from the Elizabeth Cheney Foundation supported the publication of the catalogue for "Revisiting the White City: American Art at the 1893 World's Fair" in FY 1993, and a major grant was made by NYNEX to underwrite the Thomas Cole exhibition opening in February 1994. John Singleton Copley's Portrait of Mrs. Watson was purchased in part with funds raised from the Museum's collectors' group, and many other important objects were purchased with gifts from individuals. IBM provided funds for a book featuring NMAA's African-American collection, with more than 3,000 copies distributed free to schools.

National Portrait Gallery

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	86	4,646	-	34	-	340	-	231	-	2
FY 1993 Estimate	90	4,996	-	5	-	107	-	320	-	-
FY 1994 Estimate	90	5,028	-	5	-	111	-	400	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Portrait Gallery (NPG) is dedicated to the exhibition and study of portraits of people who have made significant contributions to American history and culture and to the study of the artists who created such portraiture. The Gallery sponsors a variety of scholarly and public activities for audiences interested in American art and American history.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Portrait Gallery. The Institution requires $72,000 for Necessary Pay for existing staff funded in this line-item. A decrease of $40,000 associated with the return of Columbus Quincentenary funding is included in this line-item.

PROGRAM - The National Portrait Gallery explores the heritage and accomplishments of the American people by collecting, researching, and exhibiting portraits in all media as both historical and artistic documents.

Collections Acquisitions - Major FY 1992 purchases include portraits of Thomas Jefferson by Charles Bird King, James Abbott McNeill Whistler by Walter Greaves, Gilbert Stuart by Sarah Goodridge, and Anne Green by Charles Willson Peale. Portraits of the football pioneer Walter Camp, President Dwight D. Eisenhower, and James Cardinal Gibbons came as gifts.

Major prints and drawings purchased include Paul Colin's Josephine Baker portfolio, Jacob Lawrence's print of Stokely Carmichael, a drawing of Alex Haley, a 1782 engraving of George Washington, and William Auerbach-Levy's watercolor of the Algonquin Round Table.

Acquired as gifts were Miguel Covarrubias's drawing of Irving Berlin, Ralph Barton's gouache of Nickolas Muray, and 14 portrait drawings by Everett Raymond Kinstler.

NPG purchased photographic portraits of Clarence King, Helen Keller, Wilbur Wright, and Laszlo Moholy-Nagy. Other purchases include Claes Oldenburg and Frank Stella by Diane Arbus, Edward Weston by Ansel Adams, Gertrude Kasebier by Baron Adolph de Meyer, Robert Frank by Louis Faurer, and the actor Wallace Beery by Imogen Cunningham. As gifts, the Gallery acquired its first hologram, a portrait of President Ronald Reagan, and three photographs from the family of photographer Nickolas Muray, including two portraits of Muray by Edward Steichen and a self-portrait.

NPG's library, shared jointly with the National Museum of American Art, received a major collection of more than 500 caricature books from Raymond W. Smith, and from the Berryman Foundation more than 200 books that belonged to Washington Star art critic Florence S. Berryman and her father, Washington Star political cartoonist Clifford K. Berryman.

Collections Management - During FY 1992, 129 objects were on loan to 28 borrowers, including traveling exhibitions. The Gallery purchased a new filing system for the official object records and the staff began a project to capture all original acquisition documentation, with projected completion in FY 1995. The staff has completed a project to produce high-quality facsimile negatives from original glass negatives by Mathew Brady in the NPG Meserve Collection.

Research - With the assistance of a Women's Committee grant, the Catalog of American Portraits (CAP) completed its survey of portraits in New Mexico and continued to survey the major New York portrait collections at the Metropolitan Museum of Art and Columbia University. The CAP computer data base increased by more than 4,500 new portrait records.

After completing a pilot project which evaluated several commercial software systems, CAP selected a system and successfully transferred 70,000 records from the Institution's old Honeywell mainframe computer to a multi-relational data base that will greatly enhance this facility's capabilities to serve researchers. The staff began implementing the local area network-based collections information system, which will incorporate images, text data, and comprehensive collections management features.

The Peale Family Papers project continued work on volume 4 and on Charles Willson Peale's Autobiography (volume 5). Research also continues on the catalogue raisonne of Rembrandt Peale's work, under a three-year grant from the Walter I. Annenberg Foundation.

Exhibitions - Of the many exhibitions presented by NPG in FY 1992, several deserve special mention. "The Levy-Franks Family Colonial Portraits," organized by the Museum of Fine Arts, Boston, Massachusetts, with participation and support from the American Jewish Historical Society, was on view from February to May 1992. "Arnold Newman's Americans," a retrospective exhibition of portrait photographs by Arnold Newman in celebration of the

Gallery's recent acquisition of more than 100 of his works, will travel to five museums in the United States beginning in January 1993.

"Noble Heritage: Five Centuries of Portraits from the Hosakawa Family," features family portraits from the fourteenth to nineteenth century, and significant associative decorative objects belonging to this influential Japanese daimyo family. This is the latest in a series of cultural exchange exhibitions, and was on view from July to November 1992.

"The Spirit of Party: Hamilton and Jefferson at Odds," which opened in September 1992, celebrated the 250th anniversary of Thomas Jefferson's birth by exploring the interaction among Alexander Hamilton, Thomas Jefferson, and their circles of supporters, including John Jay, John Adams, George Washington, and James Madison.

"In Pursuit of Fame: Rembrandt Peale, 1778-1860," opened November 1992. Among the 75 paintings, letters, and publications that examine Peale's works as social and cultural documents of the early Republic are Patriae Pater, Peale's famous likeness of George Washington, and the White House portrait of Thomas Jefferson. Finally, "Lincoln and His Contemporaries: Mathew Brady Photographs from the Frederick Hill Meserve Collection," displays 60 modern albumen prints of notable Americans from the 1860s made from NPG's original glass-plate negatives. It is circulated under the auspices of the Smithsonian Institution Traveling Exhibition Service.

Publications - In FY 1992, Arnold Newman's Americans was published in association with Bulfinch Press/Little, Brown and Company. The Smithsonian Institution Press published The Presidents in its Treasury series and, with the Portrait Gallery, co-published Noble Heritage: Five Centuries of Portraits from the Hosokawa Family. The University Press of Virginia distributed NPG's The Spirit of Party: Hamilton and Jefferson at Odds. In Pursuit of Fame: Rembrandt Peale, 1778-1860, a definitive biography of the artist, will be distributed by the University of Washington Press. Revisiting the White City: American Art at the 1893 World's Fair was published by the University Press of New England, supported by the Elizabeth F. Cheney Foundation. This co-sponsored Quincentenary publication with the National Museum of American Art presents the finest achievements of America's visual artists during the late 19th century.

Education - The Education Department interprets the Gallery's collections for its visitors through daily tours, elementary and secondary school programs, senior citizen outreach programs, and public programs such as "Cultures in Motion: Portraits in American Diversity" and "Tea Time Lectures."

In FY 1992, the Department presented a new film series in conjunction with "Time Covers the War: Personalities of World War II" and conducted photography and family art workshops. In celebration of Black History Month, NPG and the NMAA presented "A Tribute to the 1940s" featuring the D.C. Youth Ensemble. The "Cultures in Motion" program premiered a highly successful theatrical presentation for children on Dr. Seuss.

Currently, the Education Department is involved in a Smithsonian accessibility study of NPG's second-floor galleries (conducted by the Institution's Office of the Assistant Secretary for the Arts and Humanities and the Institutional Studies Office). The docent appreciation luncheon held in June featured an interview with actress Julie Harris.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Various sources, which include the Gallery's share of sales in the museum shop, sales of photographic reproductions of collection objects and publications, and fees from museums to which NPG loans objects, provide these funds. These funds help defray the costs of publications, public lectures, symposia, and special events for exhibition openings, loan exhibition development and management, and research.

Restricted Funds - Designated for specific purposes, these funds are in the form of gifts and grants from individuals, foundations, organizations, and corporations. Through the assistance of the Association for Japan-U.S. Community Exchanges, Tokyo, and the Agency for Cultural Affairs (Bunka-cho) of the government of Japan, financial support was provided by Japan Air Lines Company, Ltd.; the Japan Foundation; Kokusai Denshin Denwa Company, Ltd.; Matsushita Electric Industrial Company, Ltd.; Nippon Cargo Airlines; OMRON Corporation; Pioneer Electric Corporation; Seiko Instruments, Inc.; Sony Corporation; and Suntory, Ltd.; for the exhibition "Noble Heritage: Five Centuries of Portraits from the Hosokawa Family."

The Annenburg Foundation made a generous pledge in support of a project related to the important early 19th-century portraitist Rembrandt Peale. The Marpet Foundation, Incorporated, approved a grant to assist in the publication of a catalogue to accompany NPG's 1993 exhibition of self-portraits from the James Goode Collection. Jack Banning, Jack Rennert, Louis Bixenman, and Mrs. Mary Ellen Meehan combined their support for "Poster Portraits," an exhibition that featured posters from the NPG's collection. In addition, the Gallery received gifts from a number of individual donors as well as substantial contributions for future activities and general support from Art Resource; the Barra Foundation, Incorporated; the Estate of Florence S. Berryman; the Foundation for the National Capital Region; the Clarence and Jack Himmel Foundation; Leslie Goldberg; and the Ruth and Frank Stanton Fund.

Hirshhorn Museum and Sculpture Garden

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	70	3,980	1	216	-	642	-	5,665	-	-
FY 1993 Estimate	77	4,094	1	209	-	455	-	2,100	-	-
FY 1994 Estimate	77	4,103	1	209	-	455	-	2,100	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - Public Law 89-788, signed on November 7, 1966, established the Hirshhorn Museum and Sculpture Garden (HMSG) as the Smithsonian's museum of modern and contemporary art. While the nucleus of the collection remains Joseph Hirshhorn's original gift, it has been greatly enriched by Mr. Hirshhorn's bequest of the art he had collected since 1966. Other benefactors, such as collectors and artists, continue to give works to the Museum. Purchases made from funds provided by Congress, the Smithsonian's Board of Regents, Mr. Hirshhorn, private donors, and deaccessioning have broadened the scope of the collection. The collection is the basis of an active program of exhibitions. The Museum staff conducts extensive research, prepares catalogues, and offers a variety of educational activities.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Hirshhorn Museum and Sculpture Garden. The Institution requires $58,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of $49,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - In keeping with its status as a museum of modern and contemporary art, the Hirshhorn Museum and Sculpture Garden conducts programs of research, exhibitions, collections management, acquisitions, and educational activities involving audiences of all ages. Opened to the public on October 4, 1974, the Museum attracts nearly 1 million visitors a year, making it one of the most heavily visited contemporary art museums in the United States.

Research - The Museum's resources include more than 12,500 works of art, a curatorial file providing information on artists and works in the collection, and a library with more than 36,000 books and exhibition catalogues. The staff researches the provenance, exhibition history,

iconographic significance, and physical condition of each work of art in the permanent collection. Researchers and students can study works of art not on display. A new system will ultimately allow researchers to retrieve information concerning the collection through their computer terminals. In FY 1992, a pilot project, funded in part by a grant from the James Smithson Society, used works in the collection to analyze the experimental techniques of American painter Willem de Kooning.

Exhibitions - The Museum's active exhibition program draws upon its collection as well as outside collections. In FY 1992, the Museum began a major reinstallation of the permanent collection focusing in part on monographic and educational themes. In FY 1992, HMSG mounted three major exhibitions: "Recent Acquisitions: 1989 - 1991"; "Martin Puryear," organized for the Art Institute of Chicago by the Museum's newly appointed chief curator; and "Crosscurrents in Modernism: Four Latin American Pioneers" in celebration of the Columbus Quincentenary. The Columbus Quincentenary exhibition featured some 90 works of art, including paintings by Diego Rivera, Joaquin Torres-Garcia, Wifredo Lam and Matta. The works on view revealed how these four artists fueled and ultimately enriched modern art with diverse themes and sources from Latin America. The Museum also organized smaller exhibitions from its collections, including "Robert Motherwell: Prints and Collages from the Collection," and "Frank Stella Prints from the Collection."

"Directions" is a series of one-gallery exhibitions of works by emerging artists and solo exhibitions of specific bodies of work by better-known artists. These small-scale shows strengthen the Museum's mission to present international modern and contemporary art. Artists featured in FY 1992 included Saint Clair Cemin, Francesc Torres, Thomas Struth, and Tim Rollins + K.O.S. HMSG's "Works" program integrates the Museum's building and grounds with the creative process by commissioning artists to visit the Museum and create temporary site-specific pieces. Recently, the Museum presented installations by Alfredo Jaar and Joseph Kosuth.

With an expanded funding base for exhibitions beginning in FY 1992, the Museum offset increased courier, shipping and insurance costs of large exhibitions, enabling HMSG to maintain its current schedule of three major loan exhibitions a year.

Acquisitions - HMSG must maintain an active acquisitions program to fulfill its legislated function as a "museum in Washington, D.C. where modern art could be exhibited and studied [to] enrich the culture of the Nation." Among works of art acquired with private funds in FY 1992 were Christo's Storefront (1964), Sigmar Polke's Bunnies (1966), Tim Rollins + K.O.S.'s Amerika - A Refuge (1989), and Clyfford Still's Untitled (1948). Among works acquired in whole or in part with Federal funds were Magdalena Abakanowicz's Four on a Bench (1990), Tony Cragg's Subcommittee (1991), Ana Mendieta's La Vivificacion de la Carne (1983), and Judith Shea's Post Balzac (1990).

Gifts continued to increase with the extension, to June 30, 1992, of changes in the tax law. New donations included William Beckman's Study for "Diana IV" (1980), Larry Bell's

SMS #216 (1991), Ernest Briggs's Untitled (1960), Zoran Music's We Are Not the Last (Non siamo gli ultimi) (1974), Rufino Tamayo's The Solitary One (1970), and Herbert Gentry's The Flag (1990-91), among others.

Collections Management - HMSG inventories the collection on a three-year cycle with annual spot checks. The Museum annually reviews its permanent collection to reshape its formerly private collection by deaccessioning and disposing of works of art that are judged to be surplus, redundant or duplicates, or of lesser quality. The proceeds thus realized are accumulated in a fund for new acquisitions. As specified by law, nothing may be deaccessioned without approval by HMSG's Board of Trustees.

Education and Public Outreach - To increase visitor appreciation and understanding of specific exhibitions and of modern art in general, the Museum produces a variety of educational materials, including catalogues, wall texts, labels, and brochures distributed without charge and ranging from a single page to illustrated minicatalogues. In addition, the staff develops other materials, such as posters, for sale in the Museum shop. Auditorium events in FY 1992 included film programs, and lectures by artists, critics, and art historians.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funds from the Museum's share of sales in the museum shop and various annual allotments support the salary, benefits, and travel costs for the museum director, trustee travel expenses, and various special events.

Restricted Funds - HMSG has four endowment funds. One is attributable to monies that Mr. Hirshhorn pledged at the signing of the initial agreement, and another from the monies left to the Museum in his will. A third endowment comes from deaccessioning works of art. Finally, the Museum received funds from the Holenia Trust, a Swiss trust established by Mr. Hirshhorn. The Museum can currently use these four funds only to purchase works of art. At the beginning of each prior year, the Museum's Board of Trustees has authorized 10 percent of the value of the endowment funds for use as a purchase fund for the current year.

Arthur M. Sackler Gallery/Freer Gallery of Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	72	6,003	1	90	2	769	-	4,042	-	-
FY 1993 Estimate	77	5,186	-	-	2	254	-	4,605	-	-
FY 1994 Estimate	77	5,249	-	-	2	251	-	3,429	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Arthur M. Sackler Gallery, established in 1982, and the Freer Gallery of Art, established in 1906 as the Smithsonian Institution's first art museum, are the American national museums of Asian art. Both actively seek to stimulate interest in and increase knowledge about the artistic and culturally varied traditions of Asia through research, exhibitions and other public programs, publications, acquisitions, and collections management. In addition, the Freer Gallery contains a collection of American art by artists whose work was greatly influenced by Asian art. While the Freer Gallery neither lends its collections nor exhibits works borrowed from other museums or individuals, the Sackler Gallery exhibits its own collections and loaned objects, and the objects it owns can be loaned to other museums. Collections acquisition for the museums is coordinated so as not to be duplicative; together the galleries are an important resource on the cultural heritage of Asia. These two museums complement each other in all their activities and are jointly administered by one director and served by a single staff.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Arthur M. Sackler Gallery and the Freer Gallery of Art. The Institution requires $63,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM:

ARTHUR M. SACKLER GALLERY - The Arthur M. Sackler Gallery opened in September 1987 as a national museum of Asian arts. In addition to exhibiting its permanent collection of Asian masterworks and a varied program of loans, the Gallery presents in-depth public programs related to exhibition material. The goal of the Sackler Gallery is to expand

knowledge about and appreciation of the arts of Asia and the cultural and physical contexts from which these works emerge. This goal is accomplished through exhibitions, educational programs, ongoing research, and a careful program of conservation and collections development.

Exhibitions - Exhibitions generally provide the initial point of reference for the public to experience the cultural diversity of Asia. The Sackler Gallery's exhibitions, some of which travel to other museums and institutions, draw from international public and private collections and from the Gallery's own collections. During FY 1992, five temporary exhibitions opened. These included three major installations: "Challenging the Past: The Paintings of Chang Dai-chien," "When Kingship Descended from Heaven: Masterpieces of Mesopotamian Art from the Louvre," and "Ancient Japan." Although these exhibitions made important scholarly contributions, they were presented with the general public in mind. During the first half of FY 1993, three temporary and one permanent exhibitions opened. These included two major installations: "The Golden Age of Sri Lankan Sculpture" and "Joined Colors: Decoration and Meaning in Chinese Porcelain."

Education - Education activities at the Sackler Gallery center on outreach to the Washington metropolitan area and to the Nation as a whole through teacher workshops, the development of curriculum materials, and public programs. These programs focus on current exhibitions, but they include programs designed to expand the public's awareness of Asian cultures beyond the focus of specific exhibitions. Public programs provide a view of the diversity and dynamism of Asian art and culture through theater, film, lectures, concerts, storytelling, and family activities. The Gallery works closely with Asian and Asian-American communities both locally and nationally in developing its public programs. It also works closely with local and nationwide school districts through curriculum supervisors, administrators, and teachers to develop curricula and create workshops and in-service programs.

The Gallery's staff develops Learning Centers/Reading Areas integrated into exhibitions when such a space fits the overall interpretive scheme. Examples of Learning Centers include a full gamelan and shadow puppet performance, five days a week, as a component of "The Court Arts of Indonesia," and a gallery area that explained the processes of woodblock printing and its historical context as part of an exhibition of Japanese woodblock prints. An example of a Reading Area can be found in "The Golden Age of Sri Lanka." Interpretive activities related to exhibitions are an important part of the educational mandate of the Sackler Gallery. In response, the Gallery's education staff prepare large print labels for the visually impaired, large print brochures, and children's guides for specific exhibitions.

Asian Art, a quarterly journal written for the general public, is a highlight of the Gallery's publications program. Recent issues have focused on Indian crafts and ritual and cartography and art in Asia. Authors come from a variety of disciplines and include scholars, artists, poets, and essayists.

Research - Research provides the basis for exhibitions, publications, and collections acquisition. The research program of the Sackler Gallery involves both visiting scholars and the permanent curatorial and conservation staff. The Sackler disseminates research to the public through lectures, symposia, collection research files, exhibition catalogues, free gallery guides, brochures, papers, articles, and the quarterly journal Asian Art. Other publications include catalogues for major exhibitions, such as "Joined Colors: Decoration and Meaning in Chinese Porcelain" and Ancient Japan. The Sackler Gallery has entered into an agreement with the Museum Rietberg in Zurich to assist with the publication of Artibus Asiae, a major international journal of scholarly research in Asian art.

Conservation research during FY 1992 and FY 1993 concentrated on the lead-isotope ratio analysis of Chinese bronzes in the Sackler and Freer Galleries as well as in other collections and on identification of organic colorants in East Asian paintings. As a joint effort, the Freer and Sackler Galleries received a Smithsonian Scholarly Studies grant for research on the ancient Iranian metalwork collections in both museums.

The Sackler Gallery attracts a large number of visiting research scholars, fellows, and interns, who work closely with staff curators on topics related to the collections. Scholarly grant programs advance the research and education programs based on Sackler collections and exhibitions.

Conservation - The Sackler conservation effort includes research to understand the origin and physical nature of objects and thereby to improve their care and treatment. A major expansion of the conservation facilities in the renovated Freer Gallery Building serves the Sackler's collection and exhibition programs as well. During FY 1992 and FY 1993, the staff of the Conservation Department concentrated on objects for exhibitions, including contemporary Japanese prints and ceramics, Chinese furniture, Chinese paintings, Indonesian art, and Indian and Persian illustrations and illuminations.

Collections Acquisition - Although the Sackler Gallery does not have a base of Federal funding for the purchase of objects for the permanent collection, some Trust funds are available for collections acquisition. The Gallery collects art from all of Asia in its broadest sense. Objects acquired for the collection are of the highest quality in terms of aesthetic standards, cultural history, and physical condition. During FY 1992, the Sackler Gallery acquired 74 objects by gift and bequest and six objects by purchase. Examples of acquisitions include an important group of Indian temple hangings from Nathadwara as a gift, a Chinese stoneware jar, a Japanese celedon-glazed jar, a significant gift of a Korean hanging scroll, a gift of 19 stone and bronze sculptures from Bangladesh, and an Indian silver necklace.

FREER GALLERY OF ART - The Freer Gallery of Art, which opened in May 1923, is the first art museum of the Smithsonian. The collections contain art from the many diverse cultures of West and East Asia. The Gallery also has a small collection of American art of the late 19th and early 20th century, including the largest collection of paintings by the American expatriate artist James McNeill Whistler. In addition to the program on American art and the

interrelationship of American and Asian traditions, the goal of the Freer Gallery, like that of the Sackler Gallery, is to expand the knowledge and appreciation of works of art from Asia and the cultural and physical contexts from which works of art emerge through exhibitions, education, conservation, research, and acquisitions. The collections and combined resources of the Sackler and Freer Galleries make them vital and important international centers for scholarly research and education in Asian arts and culture.

The Freer Gallery has been closed to the public for four years as it has undergone a multi-million-dollar federally funded construction and renovation project. With the reopening anticipated in May 1993, the Gallery plans to present its art objects to the public with wall text panels and gallery guides that will provide a cultural context. The Gallery will also present a continuing calendar of public programs showcasing the living arts of Asia and the pluralism within individual Asian societies.

Exhibitions - During the renovation period, extensive planning has been under way for the reopening exhibitions. Both Federal funds and private funds raised by the Gallery are supporting the reinstallation of the Freer Gallery, which will present more than 600 objects from the collection. Nineteen separate gallery installations are being designed to provide barrier-free access to these National Collections. Conservation concerns, programmatic responsibilities, and the quality, quantity, and breadth of the collections all mandate continued rotation of exhibitions from the Freer Gallery's extensive collection of Asian and American art.

Education - When the Freer Gallery reopens in May 1993, the enhanced facilities for public and school programs, including the renovated Meyer Auditorium (made possible by a donation of private funds), will enable the Gallery to expand its educational outreach. There will be innovative theater, film, dance, music, and family programs, and the Gallery will invite community groups to assist in joint programming for schools and the general public. The Gallery will adopt new interpretive strategies, including children's guides to individual galleries, self-guided tours, thematic docent tours, and curricula devoted to specific aspects of Asian art. The Freer Gallery intends for the programs in the newly renovated auditorium to complement the visitors' experience in the galleries and extend their appreciation of the arts and cultures of Asia.

Research - The Freer and Sackler Galleries share research and support facilities that serve as an international center for advanced scholarship and education of Asian art and culture. These include the newly renovated and expanded conservation laboratories, scientific research facilities, and the library and archives.

Although the results of research are most visible in exhibitions, the Freer disseminates research through collections records, lectures, and published papers and books, activities that continue even while the galleries have been closed. Evidence of ongoing research by staff includes Japanese Collections in the Freer Gallery of Art: Seto and Mino Wares, Ancient Iranian Metalwork in the Arthur M. Sackler Gallery and Freer Gallery of Art, and Freer: A Legacy of Art, the Freer's reopening publication. The Princess and the Peacocks was published

especially for children. In addition, the Freer Gallery contributes financial and intellectual support to Ars Orientalis, the Asian art journal co-published with the University of Michigan.

Conservation - The Department of Conservation and Scientific Research carries out object conservation and analysis with a staff of conservators and conservation scientists. Beyond their roles as restorers and caretakers, members of the staff engage in primary research using scientific methods and technical equipment to learn dates and methods of manufacture, geographic origins, and materials. Asian paintings are remounted and conserved by specialists trained in traditional Japanese and Chinese methods. A special painting conservation program in Japan, completely supported by a private art research foundation, has begun to remount and restore Japanese paintings in the Freer collection. In addition to conservation and research, the Department is responsible for monitoring the temperature and humidity in the new permanent collection storage areas.

While the work related to the Freer collections and reopening exhibitions continues for the painting conservators in the newly expanded facilities of the East Asian painting conservation studio, the Gallery is planning a regular training program to help alleviate the critical shortage of persons skilled in this specialized field. The very few facilities in the United States capable of restoring and mounting rare Asian paintings and screens are fully occupied in treating the objects in their respective museums.

Collections Acquisition - In FY 1992, the Gallery received 121 gifts, including ceramics from Thailand, Vietnam, Korea, China, and Japan and paintings from India, Japan, Korea, and China. In the same period, the Gallery purchased 22 objects with both Federal and private funds. Purchased objects included an exceptional Japanese lacquer box using donated funds, three unique Indian paintings, and blue-and-white Chinese porcelain for the Peacock Room.

NONAPPROPRIATED SOURCES OF FUNDING:

ARTHUR M. SACKLER GALLERY:

Unrestricted General and Special Purpose Funds - Modest proceeds from sales of Sackler items in the Sackler museum shop help support the purchase of acquisitions, the publication of exhibition catalogues and gallery guides, and the operation of the shop itself.

Restricted Funds - These funds are contributions in the form of grants and gifts from individuals, foundations, organizations, and corporations for specific purposes. Two grants were received from the Japan Foundation in support of the catalogue and symposium associated with the exhibition "Ancient Japan." This exhibition also received substantial in-kind gifts from All Nippon Airways Co., Ltd., Japan Airlines, and NHK, the Japan Broadcasting Corporation. The membership program, Friends of Asian Arts at the Freer and Sackler Galleries, continued to increase its donations of funding for collections acquisition during FY 1992 and into FY 1993.

FREER GALLERY OF ART:

Unrestricted General and Special Purpose Funds - Annual allotments to the Freer Gallery of Art defray the costs of travel for members of the Freer's Visiting Committee. Proceeds from sales of Freer items in the Sackler museum shop help support acquisitions and publications.

Restricted Funds - These funds are contributions in the form of grants and gifts from individuals, foundations, organizations, and corporations for specific purposes. A major gift was received from the Meyer family for the renovation of the Eugene and Agnes E. Meyer Auditorium in the Freer Gallery. The Mars Foundation provided a grant in support of conservation of the Peacock Room, for which the Gallery had already received a grant from the Getty Grant Program and the James Smithson Society. Substantial in-kind support was given by the Art Research Foundation in Japan for the conservation in Japan of ten paintings in the Freer collection.

The major portion of the nonappropriated Trust funds for the Freer comes from the Charles Lang Freer bequest, which restricts their use. These funds help finance the Freer's professional curatorial and administrative staff, acquisitions for the collection and the library, maintenance of the Freer's courtyard, and operation of the Freer museum shop. Income from the Harold Stern Memorial Endowment supports scholarly research in Japanese art. Funds from the Forbes Endowment support research in conservation.

Archives of American Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	20	1,236	-	94	-	-	19	876	-	-
FY 1993 Estimate	24	1,346	1	95	-	2	17	750	-	-
FY 1994 Estimate	24	1,373	1	95	-	2	17	750	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Archives of American Art (AAA), a national research repository with regional centers in New York, Boston, Detroit, and Los Angeles, has the world's largest collection of archival materials relating to the history of the American visual arts, including original manuscripts, photographs, works of art on paper, and tape-recorded oral and video interviews. The collection is housed in Washington, D.C., with microfilm copies of many of the documents made available in the regional centers and through national and international interlibrary loans. The Archives actively seeks out, collects, and preserves original source materials for study by scholars, students, curators, collectors, and others interested in the history of art and encourages research in American art and cultural history through publications, symposia, lectures, and other public programs.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Archives of American Art. The Institution requires $27,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Archives of American Art documents the art and cultural history of the United States and encourages its study by collecting, preserving, and making easily accessible the primary source materials that are essential to research. Each year AAA raises a significant portion of its operating funds from private sources.

Collections Acquisitions - During FY 1992, AAA added to its collections 158 new groups of papers containing more than 417,000 items, including original correspondence, sketches, diaries, unpublished manuscripts, and photographs. Among these papers are the painter George Yater's (b. 1910) photographs of other artists, including Hans Hofmann, Edwin

Dickinson, and Blanche Lazzell, as well as additional correspondence, writings, and biographical material of the noted photographer Imogen Cunningham (1883-1976). Other artists' papers that now enhance the collections are those of the painters John Haley (b. 1905), Yashui Tanaka (dates unknown), and writer Ira D. Glackens (1907-1991) relating to his father, the painter William J. Glackens (1870-1938). AAA also acquired the records of the Wilbur H. Burnham Studios (1920s-1991), stained-glass designers; the museum director, art historian, and educator Stanton Catlin (b. 1915); the critic Gregory Battcock (1937-1980); and political cartoonist, Clifford Kennedy Berryman (1869-1949).

During this period, AAA conducted 31 tape-recorded oral and video interviews and received 7 others as gifts. Of particular note are those with Andrew Chin, Works Projects Administration (WPA) muralist and painter; the ceramist Beatrice Wood (b. 1893) on her 99th birthday; and the painter Richard Pousette-Dart (1916-1992) just before his death; the critic Clement Greenberg (b. 1909); and Vincent Price (b. 1911), major art collector and former, early Trustee of the Archives.

Conservation and Collections Management - Microfilming helps to preserve original documents by eliminating the need for constant handling as well as making the material readily accessible to researchers around the world. AAA is concentrating efforts on processing new collections in preparation for microfilming. During FY 1992, an estimated 333 linear feet of collections were microfilmed and the staff organized more than 340,000 documents. Some 222 rolls of microfilm were produced, including 29 rolls of James McNeill Whistler material.

The Archives uses contract services to conserve, restore, and stabilize fragile or deteriorating documents. Work during this period began on a number of valuable photographs of artists, including an Arnold Newman image of John Sloan, a Carl Van Vechtan photograph of Romaine Brooks, and a Riess image of Alexander Archipenko. Several other images are also being conserved, including a Ben Shahn image entitled "14th Street" and a Weegee 1939 photograph of a tenement fire in Brooklyn, N.Y.

Research - AAA collections are now so extensive that it is impossible to do serious research in American art history without reference to them. During FY 1992, AAA centers received more than 3,188 research visits and responded to another 2,857 researcher inquiries. Scholars, students, curators, writers, dealers, and publishers studied more than 11,510 rolls of microfilm and borrowed another 2,121 rolls through AAA's interlibrary loan program.

Public Programs - AAA sponsors a variety of programs every year for its more than 2,000 members including lectures, visits to private and corporate art collections, and both domestic and international art tours. In 1991, members traveled to Spain, Portugal, and Florida. In 1992, members made trips to the Rocky Mountains and Santa Fe, New Mexico.

In addition, the Archives produced three exhibitions of archival documents at its gallery in New York. One focused on the collaboration between the dealer Leo Castelli and the artist Roy Lichtenstein; another featured the American sculptor Hiram Powers; and the third featured

Robert Smithson, minimalist sculptor and earth artist. AAA loaned documents from the collections to exhibitions at the Florence Griswold Museum in Old Lyme, Connecticut (Oscar Fehrer Papers); the New Britain Museum of American Art in New Britain, Connecticut (John Haberle Papers); Vose Galleries of Boston, Inc. (Charles Hopkinson Papers); and the Institute of Contemporary Art, Amsterdam, Holland (Wallace Berman, Robert Alexander, and Patricia Jordan Papers) as well as to the Yasuo Kuniyoshi Museum, Okayama, Japan (Yasuo Kuniyoshi Papers). Papers from the Henry Ossawa Tanner (1859-1937) collection traveled in a major exhibition of his work to the Philadelphia Museum of Art, the Detroit Institute of Arts, the High Museum in Atlanta, and the Fine Arts Museum of San Francisco.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Provided through annual allotments, these funds defray costs associated with special events recognizing donors to the Archives, supplement travel expenses incurred by the Archives' Board of Trustees, and provide partial support for basic program operations.

Restricted Funds - Fund-raising activities, gifts, foundation and corporate grants, dues from the Board of Trustees, and AAA's membership program generate funds for the Archives. A substantial portion of this income supports AAA's general operating expenses, oral history program, and publication program.

A new foundation grant received from the Florence Gould Foundation during this period supports AAA's Paris Documentation Project, which is conducting a survey of papers on American artists in Paris. Continuing programs supported by foundation and Trust funds include the Philadelphia Documentation Project underwritten by the Pew Charitable Trusts and national collecting projects in the South, New Mexico, and the Northwest underwritten by the Henry Luce Foundation. A major grant from the Brown Foundation, an operating grant from the Times Mirror Foundation, and income from the Wellin-Taubman Reserve Fund established in 1986 by AAA's Board of Trustees also help to underwrite the costs of AAA's basic programs.

Cooper-Hewitt Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	36	2,211	17	1,048	1	1,328	1	412	-	36
FY 1993 Estimate	39	2,262	17	963	1	768	1	395	-	-
FY 1994 Estimate	39	2,308	17	963	1	768	1	329	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - Cooper-Hewitt, National Museum of Design, located in New York City, explores the creation and consequences of the designed environment. The designed object may be as common as a paper cup, as distinctive as a crystal goblet, as complex as a city, or abstract as an economic system. Cooper-Hewitt investigates the structures and effects of these products of design and their roles as forces for communication and change. The Museum is interested in all aspects of design, including urban planning, architecture, industrial design, landscape design, interior design, textiles, theater arts, advertising, graphic arts, and crafts. As the National Museum of Design, Cooper-Hewitt strives to explain the design process by recognizing the impact of design on society, the natural environment, and the individual, and acknowledging the interplay between culture and design.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Cooper-Hewitt Museum. The Institution requires $70,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of $24,000 associated with the return of Columbus Quincentenary funding included in this line-item.

PROGRAM - Cooper-Hewitt is the only museum in America devoted exclusively to historical and contemporary design. The Museum pursues its goal through exhibitions, publications, collections activities, research, and educational programs for professionals, the adult public, and schoolchildren. In addition, the Museum jointly offers with the Parsons School of Design a master's degree program in the history of decorative arts.

Exhibitions - During FY 1992, Cooper-Hewitt exhibited "The Cooper-Hewitt Collections: A Design Resource," the first exhibition that focused entirely on the Museum's permanent

collections in nearly 100 years. The show featured close to 1,000 objects and represented the breadth and depth of the Museum's collection of almost 250,000 objects.

"The Power of Maps" exhibition opened on October 6, 1992. Designated as Cooper-Hewitt's Columbus Quincentenary commemoration, this exhibition presents more than 300 historic and contemporary maps dating from 1500 B.C. to the present and explores the significance of maps as instruments of communication, persuasion, and control. Despite an aura of scientific neutrality, all maps present information selectively, shaping our view of the world and our place in it.

Exhibitions currently in planning stages include a retrospective of the work of 20th-century American industrial designer Donald Deskey and an exploration of universal design and accessibility in the built environment. "Czech Cubism: Architecture and Design, 1910-1925" will open in April 1993.

Publications - In FY 1992, the Smithsonian Institution Press published Conservation Concerns: A Guide for Collectors and Curators, a compilation of scholarly articles about conservation and collection care edited by Cooper-Hewitt's paper conservator, Konstanze Bachmann. Also, the Museum produced a brochure for "The Power of Maps" exhibition. With privately raised funds, work continues on several publications begun in FY 1991, including a scholarly study of Cooper-Hewitt Museum--its collections, philosophy, and definition of design--and a catalogue based on the work of Donald Deskey. The Museum is also preparing a guide to Deskey's archives housed at the Museum.

Collections Activity - During FY 1992, Cooper-Hewitt acquired 1,525 additional objects for its collection. Among the most notable were two 19th-century British pattern books, an early 20th-century Scottish stenciled bedcover, a group of 80 American wallpapers from the Scalamandré Company circa 1910 to 1935, 15 pieces of Dutch art nouveau ceramics dating from the turn of the 20th century, and 231 drawings plus related printed material by William Hunt Diederich.

During the same period, the Museum loaned 145 objects to 21 museums, borrowed eight objects, and conserved about 300 objects. Approximately 600 scholars, private individuals, designers, and representatives of corporate interests visited the collections for research purposes. Visitors to the four curatorial departments--Drawings and Prints, Decorative Arts, Textiles, and Wallcoverings--and to the design archive included representatives from Scalamandré, Hallmark Cards, and Radio City Music Hall and scholars and researchers from museums and universities around the world. In addition, three groups of representatives of the newly formed Russian Republic visited the Museum. The Museum's specialized research library, which complements the collection, received 1,150 visitors.

Research - Notable research projects in progress during FY 1992 included the study of 18th-century drawloom woven silks; preparatory research for the future exhibition "Universal Design for the Activities of Daily Living," which will focus on issues of accessibility in the built

environment; research on Donald Deskey furniture, interiors, and industrial design; and the establishment of an African American design archive.

During the 1992-93 academic year, the third annual Peter Krueger-Christie's fellow is conducting research on European Renaissance marriage rituals. In FY 1992, Mr. and Mrs. Harvey Krueger supported a paid summer internship program that allowed six college students to gain firsthand experience with museum work. The master's degree program in the history of decorative arts graduated 45 students.

Educational Programs - In FY 1992, Cooper-Hewitt received federally appropriated funds designated for use by the Education Department. These funds allowed the Museum to continue programs for children and free public programs. During FY 1992, the Museum served approximately 8,300 people with a wide range of lectures, courses, symposia, workshops, gallery talks, and tours. An example of Cooper-Hewitt's innovative educational endeavors is the designer-in-residence program, which this year brought a notable industrial designer to Cooper-Hewitt for four months to teach school groups about design. Design Career Days for high school students was another highlight of the Museum's educational programming. Among the significant symposia held in FY 1992 were "The Edge of the Millennium," which explored the possible effects of the new millennium on the world of design, and "Universal Design: Access to Daily Living," a two-day conference that discussed design issues relating to people with a variety of abilities and the concept of universal design. As part of Cooper-Hewitt's outreach efforts, the Museum sponsored a summer series of four free lectures and outdoor concerts. The series, "De Generacion a Generacion: Mexico's Living Traditions," celebrated the culture and traditions that gave form and meaning to Mexican craft, ritual, music, film, and dance. Two thousand five hundred people attended the four evenings.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Museum obtains these funds from a variety of sources, including museum shop sales, product development, individual and corporate memberships, admission fees, donations, fund-raising events, and annual allotments.

Restricted Funds - Designated for specific purposes, these funds are derived from grants, bequests, and donations from individuals, foundations, and corporations. During FY 1992, Cooper-Hewitt received support from the Smithsonian Institution Special Exhibition Fund, American Express, General Electric Foundation, and Environmental Systems Research Institute, Inc., for "The Power of Maps" exhibition. Cooper-Hewitt received support for its summer lecture-concert series, "De Generacion a Generacion," from the Educational Outreach Fund administered by the Office of the Assistant Secretary for Education and Public Service.

Established to advance the understanding of design and decorative arts as it encourages and supports a promising young scholar, the Peter Krueger-Christie's fellowship provides a stipend of $15,000 for a one-year period and a travel allowance of $2,000 for research at

Cooper-Hewitt. In addition, for the second consecutive year, Mr. and Mrs. Harvey Krueger supported a paid summer internship program for college undergraduates.

Private support came from the Decorative Arts Association membership and programs, the Iris Foundation, Mr. and Mrs. Frank Hoch, the Hayden Family Foundation, and Cahners Publishing. The Helena Rubinstein Foundation again supported educational programming through scholarships for graduate students enrolled in the master's degree program in the history of decorative arts. These scholarships have been awarded since the program's founding in 1982. Additional funds were donated in memory of director emeritus Lisa Taylor to the Lisa Taylor Fund for Design Research.

Government Grants and Contracts - Various government agencies and departments provide these funds for specific program support. The Museum annually seeks funding from the New York State Council on the Arts, which in FY 1992 supported planning for the upcoming exhibition "Packaging the New: Donald Deskey and Modern Design in America, 1925-1975."

National Museum of African Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	51	3,723	1	32	-	58	-	140	-	-
FY 1993 Estimate	58	3,951	-	-	-	74	-	377	-	-
FY 1994 Estimate	58	3,995	-	-	-	30	-	935	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The National Museum of African Art (NMAfA) is the only museum in the United States devoted solely to the collection, preservation, research, exhibition, and interpretation of the visual arts of sub-Saharan Africa. Although the Museum's primary emphasis in on the traditional cultures of the sub-Saharan region, it also studies and exhibits the arts of other African areas, including the arts of North Africa and the ancient and contemporary arts of the entire continent.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the National Museum of African Art. The Institution requires $44,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The National Museum of African Art educates and instills an appreciation for the cultures and visual arts of Africa. These goals are accomplished through the acquisition, care, exhibition, and interpretation of works of art in the context of African history, cultures, and aesthetics.

Collections Acquisitions - During FY 1992, NMAfA acquired 51 works of art. Among the most important are a monumental bovine-shaped drum collected in Zaire in the 1930s, a group of three early paintings dated 1930 by the Zairian artists Djilitendo, and one painting dated 1948 by the artist Pili-Pili, also from Zaire. The Museum was exceptionally pleased to add several significant works of art by well-known contemporary artists. Among these are two paintings by the Ethiopian artist Alexander Boghossian (b. 1937) and two portfolios of etchings by the Sudanese artist Mohammad Omer Khalil (b. 1936).

During FY 1992, the Eliot Elisofon Photographic Archives acquired 15,000 original slides, 177 photographs, and more than 4,500 vintage postcards. Particularly significant are a collection of 19 albumen prints of peoples of South Africa in the 1880s and 346 postcards, dated about 1910, of Lower and Upper Egypt.

Collections Management - The Conservation Department devoted special attention in FY 1992 to the preservation of the Museum's growing collection of paintings and works on paper by modern African artists. In addition, conservation analysis and successful treatment of NMAfA's rare Benin head, dated late 14th-early 15th century, significantly advanced understanding of Benin metalwork. Tests by the Museum's conservators revealed that certain waxes and synthetic coatings applied by collectors and museums in the 19th and 20th centuries to protect Benin castings are deleterious and must be removed.

In FY 1992, the Registration Department completed the transfer of 8,754 object records from the Smithsonian Selgem program to NMAfA's computerized collections management program, which was developed in FY 1991. Work also began on consolidating those pre-1986 records with 800 records from 1986 to the present. Completion of this work assures instantaneous retrieval of collections data.

The Eliot Elisofon Photographic Archives created a computerized collections management program in FY 1992. The first 25,000 field photographs of African life are now on the data base. The Archives also completed a conservation survey of its holdings of more than 250,000 images and films.

Research - Research and scientific analysis of decorative coatings applied to 22 ceramics in the Museum's permanent collection were completed by the Conservation Department staff. This study made it possible to determine how best to exhibit, preserve, store, and classify these fragile works made at the turn of the century.

NMAfA's Benin collection will be part of a larger research study conducted by the Smithsonian's Conservation Analytical Laboratory on the source of metals used in casting. Identification will aid in determining trade patterns and contribute to understanding the chronology of West African metal objects.

Exhibitions - In FY 1992, NMAfA opened a new permanent installation of 19th and early 20th century pottery from Central Africa. The Museum also redesigned and installed its collection of sculpture from the Western Sudan and Guinea Coast regions to accommodate new works acquired since 1987.

The exhibition "Recent Acquisitions/New Dimensions" opened in FY 1992, demonstrating the Museum's continuing commitment to the collection and exhibition of modern African art. Also in FY 1992, the Museum's gallery devoted to experimental temporary exhibitions of works from the permanent collection offered "Between Man and the Gods: Sacrifice and Ceremony on a Cast Metal Ring." The exhibition presented the results of

curatorial research into the history, function, and iconography of a Yoruba ceremonial ring, one of 12 known in the world. The final FY 1992 exhibition in this gallery, "Elmina: Art and Trade on the West African Coast," examined the history of Elmina, the 15th-century Portuguese trading fort in the region once known as the Gold Coast and its surrounding coastal town. The exhibition traced the history of the fort and its trade in gold and slaves and examined a rich variety of Akan art forms.

Publications - In FY 1992, the Museum's library staff completed Nigerian Artists [1920-1990]: A Who's Who and Bibliography, the first reference publication devoted to named African artists from 1920 to 1990. The two-volume Catalogue of the Library of the National Museum of African Art, Branch of the Smithsonian Institution Libraries, published in 1992, will serve scholars and the public throughout the world. The Museum published History, Design and Craft in West African Strip-Woven Cloth, a series of papers presented at NMAfA's 1988 textile symposium. An essay by one of the Museum's conservators on the decorative coatings on Kongo ceramics was published by the Materials Research Society in its Symposium Proceedings, volume 267. Among the 1992 publications by the Museum's curators were "Museum Exchanges and Training: Who, Where, Why and How?" Proceedings of the Encounters: What Museums for Africa? Heritage in the Future. Paris: ICOM by Philip Ravenhill and "Images from Bamum. German Colonial Photography at the Court of King Njoya, Cameroon, West Africa, 1902-1915." Reprint; and Richard Anderson (ed.): Art in Small-Scale Societies: Contemporary Readings. New York (Prentiss-Hall), pp. 411-424, by Christraud Geary.

Education - The Education Department informs the public about African art and culture through interpretive programs including tours, school and teacher-training programs, symposia, seminars, workshops, and demonstrations. In cooperation with the Smithsonian's Office of Elementary and Secondary Education, NMAfA developed a course for a summer institute on African art for secondary school teachers. During FY 1992, more than 1,300 public programs were offered by NMAfA, serving 36,000 individuals. The Museum also expanded its services to the hearing-impaired through captioned videos and sign language interpreters.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from the Museum's share of proceeds from the museum shop, courses conducted in cooperation with Washington, D.C., metropolitan area public education institutions, and allotments. NMAfA uses these funds to provide additional support for its education and collections acquisition programs, exhibition openings, publications, and travel costs associated with the Museum's Commission meetings. The Museum used funds available from the Institution's Collections Acquisition Fund in FY 1992 to assist in the purchase of an important Zairian Ubangi slit gong. A grant from the Institution's Special Exhibition Fund supported the planning phase for an exhibition titled "Astonishment and Power: Kongo Minkisi and a New World Resonance." Funds from the Scholarly Studies, Educational Outreach Program, and Research Opportunities Fund are also available to support research and education projects.

Restricted Funds - Individuals, foundations, organizations, and corporations provide grants and gifts for specific purposes. The Museum receives income from a collections acquisition endowment established in FY 1988. Using a grant from the Shell Oil Company Foundation received in FY 1991, the Museum published an exhibition catalogue accompanying the Elmina exhibition. A grant from the Aga Khan Trust for Culture, awarded jointly to the Arthur M. Sackler Gallery and NMAfA in FY 1991 and administered through the Smithsonian's Office of Sponsored Projects, supported the continuation of planning for an exhibition project on the art and culture of the Islamic world.

Anacostia Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	20	1,087	2	166	-	26	-	1	-	-
FY 1993 Estimate	20	1,152	2	172	-	-	-	-	-	-
FY 1994 Estimate	20	1,174	2	172	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Anacostia Museum is a national resource for African American history and culture, community-based museology, and the examination of contemporary social issues and their impact on the African American population. The Museum's research, collecting, exhibition, and educational outreach activities focus on Washington, D.C., and the Upper South, a region that includes Virginia, Maryland, North Carolina, South Carolina, and Georgia. The Museum's activities and projects offer scholars and the public a unique opportunity to study black history and culture from both scholarly and constituent perspectives.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Anacostia Museum. The Institution requires $22,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Anacostia Museum serves as a national model for community-focused museums across the country. Additionally, the Museum plays a significant flagship role for African American museums and cultural organizations in the Upper South. Devoted to the interpretation of the black experience in Washington, D.C., Virginia, Maryland, North Carolina, South Carolina, and Georgia, the Museum's unique and multi-faceted program of applied research, collections development, documentation, exhibits, educational activities, and outreach projects provides local, regional, national, and international audiences with greater understanding of African American contributions to American society. The Museum's research and outreach projects, while local and regional in focus, are designed to serve as models with potential for replication in the national and international arenas.

Research and Collections - A new collections management policy has placed the Museum in the vanguard of collecting local and regional patrimony. Significantly increased collecting activity is expected to be the major focus of the Museum for the next five to ten years. During FY 1992, materials added to the collections included those reflecting the lives of Ethel Payne, an internationally known journalist; Ben Layton, a community and civil rights leader; Leslie Payne, a nationally collected folk artist; and a variety of materials related to the Anacostia community and Washington, D.C. During FY 1993, the Museum will begin its innovative approach to collecting by hosting workshops and seminars throughout the metropolitan region while continuing to develop an interactive exhibit on the process of collecting African American material culture. Topics for exhibit-related research include African American theater and dance and the contemporary international resident communities of the African diaspora.

Exhibits - In FY 1992, the Museum mounted three exhibits, all of which gained positive public and press reviews: "To Achieve These Rights: The Struggle for Self-Determination and Equality in the District of Columbia," "Kaleidoscope: African American Photography in Washington D.C.," and "Affirmations: Assemblages by Schroeder Cherry." In FY 1993, as part of the observance of its 25th anniversary, the Museum will host a series of nationally significant traveling exhibits. The Museum's groundbreaking examination of cultural diversity, "Black Mosaic," will open in FY 1994. A long-range exhibit schedule continues to guide research and collecting efforts.

Education and Outreach - Building on its tradition of innovative educational and outreach activities, the Anacostia Museum continues to develop and present a variety of tours, seminars, workshops, and lectures. In FY 1992, the Museum gained recognition in two new areas of endeavor. Its film on collecting African American church histories, "Climbing Jacob's Ladder," premiered at the American Film Institute and will be used as the cornerstone for future collection development in this important area. The Museum also produced a series of highly successful outdoor performances and activities, including its annual Juneteenth celebration, which attracted more than 5,000 people.

To expand its outreach efforts, the Museum has begun a multi-phase Youth Services Program. This project will increase teenage awareness of museum careers as well as help address one of Washington's major social issues--at-risk youth. During FY 1993, the Museum will hold a series of discussions throughout the region about the Museum and its collecting efforts. A major new outreach initiative began in FY 1992 with the operation of scheduled bus service from the National Mall. This service will also be used to transport community groups to the Museum during morning hours.

In FY 1992, outreach and educational activities together constituted more than 200 programs and reached more than 65,000 people. As part of its outreach efforts, the Museum has continued publication of a newsletter that began in FY 1990.

Future Development - The Smithsonian Institution remains strongly committed to the continued development of the Anacostia Museum. In addition to the new collections management policy, the Museum produced several policy and position papers in FY 1992. A major focus is constituent services to museums and cultural organizations in Washington and the Upper South as well as a collaboration with the Birmingham Museum in Birmingham, England.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Annual allotments support the salary and benefit costs for the director and an exhibit specialist as well as trustee expenses and routine staff business expenditures. Additional funds derived from donations and traveling exhibit rental fees support the Museum's outreach programs.

Restricted Funds - Gifts and grants are donated for specific projects.

Office of Exhibits Central

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	45	2,093	-	-	-	66	-	-	-	-
FY 1993 Estimate	46	2,245	-	-	-	100	-	-	-	-
FY 1994 Estimate	46	2,283	-	-	-	100	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of Exhibits Central (OEC) is the Smithsonian Institution's single largest exhibit producer, providing Smithsonian organizations with comprehensive exhibition services. OEC is expert in the specialized needs of traveling and temporary exhibitions as well as permanent installations. The OEC exhibit specialists form teams with curators and subject-matter specialists to prepare effective visual displays of content ideas that meet educational and accessibility requirements. OEC's state-of-the-art facilities handle all aspects of Smithsonian exhibitions, including design, graphics, models, and fabrication. This program is also involved in object selection, recommendations to seek conservation assistance, and product research, evaluation, and testing. OEC provides training in exhibit design and production.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Office of Exhibits Central. The Institution requires $38,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Office of Exhibits Central consists of two major exhibition-related departments: the Design, Editing, and Graphics Department and the Production Department.

The Design, Editing, and Graphics Department works with a curator's preliminary concepts and exhibition aims to develop an overall exhibition plan. Exhibit designers are responsible for all aspects of visual presentation. OEC's exhibit editors work closely with designers and with subject specialists to ensure that words and visuals are carefully paired to tell the exhibit's "story" while meeting the accessibility and didactic aims of the Smithsonian. This department also provides the services of an illustrator. The Graphics Shop provides silk-

screening, typesetting, photograph mounting, conservation matting and framing, and other graphic art services.

The Production Department translates the design into a three-dimensional exhibition. The Model Shop creates scientifically and historically accurate dioramas, models, and mannequins and brackets artifacts for display. It also offers taxidermy services. The Fabrication Shop constructs fine cabinetry and display casework as well as customized crating. Sheet plastics work is a specialty.

The Fabrication, Model, and Graphics shops also install, strike, and pack exhibitions. The designers and production teams of OEC work with installation teams of building tradespeople, art handlers, conservators, registrars, security personnel, lighting specialists, building managers, and others to bring an exhibition to the public.

During FY 1993, OEC completed more than 100 projects, supporting nearly every Smithsonian office and bureau. A sampling of projects completed or in progress are:

- OEC's Model and Fabrication Shops produced custom mannequins and models for the inaugural exhibits at the new National Museum of Postal History.

- OEC designed and fabricated "Perpetual Campaign: The Making of the People's President" for the Smithsonian Institution Traveling Exhibition Service. OEC updated the show in mid-tour to feature the 1992 election.

- OEC edited scripts, fabricated exhibit pedestals, and sculpted mannequins for "Pathways of Tradition," the preview exhibition at the National Museum of the American Indian's New York Custom House facility.

- OEC designed and installed "Imperial Austria: Treasures of Art, Arms, and Armor from the State of Styria" in the International Gallery.

- OEC created models mannequins, and dioramas and edited script for the new "Insect Zoo" exhibit in the National Museum of Natural History.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Reimbursements from internal Smithsonian units provide these funds. OEC uses the funds to purchase supplies, materials, and services in support of OEC activities; to defray costs associated with special events; and to supplement travel expenses.

Smithsonian Institution Traveling Exhibition Service

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	30	2,292	8	344	24	1,076	-	852	-	46
FY 1993 Estimate	44	2,544	8	355	4	525	-	905	-	2
FY 1994 Estimate	44	2,535	8	355	4	525	-	920	-	2

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) expands the Smithsonian's presence beyond Washington, D.C., by circulating exhibitions to public audiences in museums large and small and in schools, libraries, science centers, historical societies, zoos, aquariums, and community centers. SITES exhibitions reach nearly 11 million people annually in the United States and abroad. A commitment to audience access drives the development of all SITES programs. SITES's top priority is increasing the availability of Smithsonian-created exhibitions among people who cannot see them firsthand by visiting the Institution's museums. Facilitating the sharing of exhibitions created outside the Smithsonian--SITES's second priority--is another way SITES works to respond to diverse program needs and interests.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Smithsonian Institution Traveling Exhibition Service. The Institution requires $45,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of $54,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The Smithsonian Institution Traveling Exhibition Service reconfigures and packages for widespread circulation exhibitions developed by Smithsonian museums and program offices and by institutions and organizations outside the Smithsonian. SITES tailors the form and content of these exhibitions to meet the program needs and technical capabilities of museums and cultural and educational facilities worldwide.

In developing exhibitions for audiences of all ages and backgrounds, SITES strives to do more than present artifacts. SITES exhibitions represent a broad range of human perspectives;

they pose questions, communicate abstractions, and challenge visitors to make connections among objects, people, places, events, and ideas. By emphasizing diverse viewpoints and by using inquiry as a means of interpreting exhibition themes and images, SITES hopes to encourage people to explore the full breadth of possibilities about themselves, others, and the world around them.

Smithsonian Exhibitions - SITES's FY 1994 program schedule includes seven new Smithsonian exhibitions. Among the most ambitious is "Ocean Planet," a large-scale, multi-media presentation that highlights the importance of ocean conservation. Developed jointly by the Smithsonian's Office of Environmental Awareness and the National Museum of Natural History, the exhibition will travel under SITES's auspices to natural history museums, science centers, and aquariums in major U.S. cities. Low-cost, portable versions will be available for schools and rural communities.

A collaborative exhibition between SITES and the National Museum of American History will survey music of the "swing" era. This FY 1994 project, the second in a multi-year outreach initiative to bring America's rich jazz heritage to cities and towns across the country, will feature computerized audio programs, original scores, photographs, archival documents, live performances, and school curriculum guides.

More than 30 Smithsonian-created exhibitions will circulate during FY 1994. Covering a range of subjects as diverse as spiders, volcanoes, maps, classical architecture, labor history, space exploration technology, World War II victory posters, and African American invention, SITES's exhibitions will provide visitors worldwide with a rich picture of the Smithsonian's scope and vitality.

Exhibition Partnerships - Partnerships with institutions and organizations outside the Smithsonian enable SITES to meet more fully the program needs and interests of the diverse audiences it serves. In FY 1994, for example, 12 SITES exhibitions will explore facets of the African American experience. One such exhibition, "Songs of My People," is a stirring photographic portrait of African American life created in partnership with New African Visions and the Corcoran Gallery of Art. The itinerary for "Songs" includes museums and cultural centers in 36 states.

Together with the National Geographic Society, SITES developed and will circulate "Where in the World," an aggressive instructional exhibition designed to help reduce geographic illiteracy among school-aged youth, in FY 1994. Even before SITES established a final itinerary for this project, more than 100 museums signed up to host it. "Altered States," another FY 1994 exhibition aimed at younger audiences, is the result of a SITES partnership with the Strong Museum in Rochester, New York. The exhibition examines the history and implications of substance abuse. A third children's exhibition, "The Kid's Bridge," looks at racism and what each of us can do to combat its harm. SITES adapted "The Kid's Bridge" for national circulation from an exhibition developed by the Children's Museum, Boston.

Hispanic audiences, long underrepresented in museum programs, will have a fuller range of programs in which to participate with the inclusion in SITES's FY 1994 program of "Mexico: A Landscape Revisited," a collaborative project with the Mexican Cultural Institute. "Mexico: A Landscape Revisited" brings to five the number of Spanish/English exhibitions available from SITES.

To expand its services to resource-poor institutions, SITES creates low-cost exhibitions in partnership with state Humanities Councils and the American Library Association. Producing easy-to-install, small format exhibitions will dominate SITES's partnership agenda with these organizations in FY 1994.

SITES is a high-visibility outreach arm of the Smithsonian. Its more than 100 exhibitions tour museums and cultural centers in all 50 states. SITES hopes that its expanded service capabilities in FY 1994 will enable more Americans than ever before to experience the rich variety of exhibition programs available from the Smithsonian. Between FY 1990 and FY 1992, SITES exhibitions traveled to 367 communities in all 50 states and the District of Columbia. Outside the United States, 15 communities hosted SITES exhibitions.

Alabama	21	Montana	2
Alaska	8	Nebraska	8
Arizona	5	Nevada	7
Arkansas	16	New Hampshire	4
California	63	New Jersey	15
Colorado	27	New Mexico	15
Connecticut	17	New York	81
Delaware	1	North Carolina	20
District of Columbia	10	North Dakota	2
Florida	36	Ohio	42
Georgia	29	Oklahoma	11
Hawaii	6	Oregon	13
Idaho	14	Pennsylvania	28
Illinois	37	Rhode Island	4
Indiana	23	South Carolina	8
Iowa	12	South Dakota	2
Kansas	35	Tennessee	14
Kentucky	11	Texas	39
Louisiana	15	Utah	7
Maine	3	Vermont	3
Maryland	23	Virginia	21
Massachusetts	33	Washington	16
Michigan	43	West Virginia	20
Minnesota	10	Wisconsin	11
Mississippi	6	Wyoming	2
Missouri	28		

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - SITES's annual operating budget comes partly from rental fees collected from museums and other recipients of traveling exhibitions. These fees, supplemented by an allotment for salaries and benefits, support design and production, publications, materials, outside specialists, and contractual services.

Restricted Funds - Individuals, organizations, and corporations donate gifts and foundation grants for specific SITES projects. During FY 1992, SITES received support from Time Warner, Inc., for "Songs of My People"; from the Nature Conservancy for "Two Eagles"; and from the Lila Wallace-Reader's Digest Fund for "America's Jazz Heritage," a ten-year initiative aimed at bringing jazz to public audiences across the nation.

PUBLIC SERVICE AND EXTERNAL AFFAIRS

Assistant Secretary for Education and Public Service

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	5	384	5	299	-	70	-	21	-	-
FY 1993 Estimate	6	410	5	256	-	-	-	6	-	-
FY 1994 Estimate	6	415	5	256	-	-	-	6	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of the Assistant Secretary for Education and Public Service (OASEPS) encourages program initiatives that advance the Institution's objectives in education, research and documentation of living cultures, facilitation and advocacy of cultural diversity in employment and programs, the development of wider audiences, and celebrations focused on the achievements and contributions of women and ethnic minority groups. The Office advises Smithsonian management on public service policy issues in the central planning, development, and oversight of all education and public service programs and activities of the Institution. This line-item includes the Wider Audience Development Program (WADP), which advises and assists Smithsonian managers on policy issues as they relate to minority audience participation in exhibitions and other public programs.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Office of Assistant Secretary for Education and Public Service. The Institution requires $5,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM:

I. Office of the Assistant Secretary for Education and Public Service - The Office of the Assistant Secretary for Education and Public Service focuses on the critical issues of education, cultural diversity, and cultural equity. The Office and the units it oversees serve as central channels for the diffusion of educational information and assistance programs inside and outside the Institution. They disseminate information on the Smithsonian to broad national audiences, plan and execute formal and informal educational outreach efforts, and engage in research and documentation of living cultures. The Office maintains liaison with the Smithsonian African-

American Association, Asian-Pacific American Heritage Committee, Latino Working Committee, American Indian Council, and other internal and external ethnic and advocacy committees and collaborates with Smithsonian bureaus, offices, and other assistant secretaries to develop and execute outreach programs that bring diverse cultural communities and professional sectors to the Institution. The units reporting to the Assistant Secretary include the Wider Audience Development Program, the Center for Folklife Programs and Cultural Studies, the Office of Elementary and Secondary Education, and the National Science Resources Center.

II. Wider Audience Development Program - The Wider Audience Development Program (formerly Smithsonian Office of Wider Audience Development) coordinates initiatives throughout the Institution to promote cultural diversity and equity. WADP plans federally designated observances of ethnic and women's heritage and other special events. The Program also provides technical assistance to Smithsonian bureaus and offices to strengthen ties with nontraditional audiences and conducts local and national outreach to culturally diverse organizations. WADP serves as the primary liaison to the Smithsonian Institution's Cultural Education Committee and staff advocacy groups in their efforts to enhance the presence and presentation of underserved communities.

During 1992, approximately 24 public programs were produced to enhance the Institution's knowledge of and contact with the diverse audiences that constitute the American public. Examples include an address by the former Bronx Museum of the Arts Director Luis Cancel on the role of Latinos in mainstream museums, a concert of Latin American music which drew a crowd of over 5,000 visitors, a lecture and demonstration by Dr. Wyatt Tee Walker on the African roots of black American spiritual music, a speech by the Honorable Elijah Harper on public policy issues confronting the native peoples of Canada, an address by University of Colorado History Professor Dr. Evelyn Hu-DeHart on the Asian diaspora in Latin America, a speech by Navajo Nation President Peterson Zah on environmental issues facing Native Americans, and a series of programs to mark the 50th anniversary of the Japanese-American internment camps, including a screening of the Academy Award-winning documentary Days of Waiting and remarks by the film's director Steven Okazaki.

NONAPPROPRIATED SOURCES OF FUNDING:

I. Office of the Assistant Secretary for Education and Public Service:

Unrestricted General and Special Purpose Funds - An annual allotment provides for the salary, benefits, and support costs of four staff members assigned to the immediate Office. A special purpose fund provides for the Educational Outreach Program, which supports innovative and experimental educational programs that demonstrate thoughtful approaches and creative methods for inclusion of diverse audiences, especially groups traditionally underserved. While the projected expenditures appear under this Office, actual expenditures will appear under the recipient organizations.

II. Wider Audience Development Program:

Unrestricted General and Special Purpose Funds - Annual allotments provide salary and benefits for a program assistant and support costs for wider audience initiatives, including the Cultural Education Committee, which fosters pan-Institutional outreach efforts to promote inclusion of diverse cultural expertise in research, collections, exhibitions, educational programs, and staffing in senior and administrative positions.

Restricted Funds - In FY 1992, a grant received from the Kellogg Foundation provided a three-year fellowship program for the director. The Kellogg National Fellowship Program (KNFP) is a multi-disciplinary leadership development program that provides fellows non-traditional educational experiences outside of their academic and professional assignments. In addition to mandatory KNFP seminars, fellows design individual learning plans which allow them to investigate selected topics and attend relevant conferences, workshops, meetings, and classes.

Center for Folklife Programs and Cultural Studies

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	16	1,318	15	761	1	365	-	207	-	263
FY 1993 Estimate	14	1,255	15	810	1	275	-	150	-	700
FY 1994 Estimate	12	1,065	15	810	1	275	-	150	-	750

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Center for Folklife Programs and Cultural Studies (formerly the Office of Folklife Programs) engages in cultural studies and conservation activities--scholarly research, public programs, archival collections, and exhibitions that promote the understanding and continuity of grass-roots regional, ethnic, minority, tribal, and occupational cultures both in the United States and abroad. The Center performs research in collaboration with academic and community scholars; produces the annual Festival of American Folklife; collaborates on traveling exhibitions; maintains and distributes the Smithsonian/Folkways Recordings Collection; produces documentary films, videos and publications; initiates educational programs and materials; and provides fellowship and training programs for cultural studies.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Center for Folklife Programs and Cultural Studies. The Institution requires $17,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of 2 workyears and $207,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The Center for Folklife Programs and Cultural Studies conducts scholarly research and public programs that promote the understanding and continuity of grass-roots regional, ethnic, minority, tribal, and occupational cultures both in the United States and abroad. The Center performs research in collaboration with academic and community scholars and produces the annual Festival of American Folklife; Smithsonian/Folkways Recordings; documentary films, videos, and print publications; educational programs and materials; traveling exhibits; and programs for the Columbus Quincentenary. It also maintains the Folkways

Archives and Collections. The Center cooperates with Federal and state agencies to advance the Nation's interest in cultural matters.

Research - Research projects study the continuing practice of local grass-roots traditions among diverse cultural communities in contemporary society. Major current projects examine cognate cultures of the United States and the Commonwealth of Independent States, the changing musical culture of American Indians, the cultures of U.S. borderlands, African immigrant culture, the musical and verbal arts of Indonesia, and the cultural mosaic of Jerusalem. Center scholars and fellows pursue research on Indian lacrosse, African narrative, music and technological change, urban U.S. Latino culture, and African American dance.

Festival of American Folklife - The Festival of American Folklife, held annually on the National Mall since 1967, educates a broad public to human cultural diversity and encourages tradition bearers by giving national recognition to their artistry, knowledge, and wisdom. The Festival has provided a national and international model for the research-based presentation of cultural traditions. The 1992 Festival featured programs on New Mexico, the culture of Maroon communities in the Americas, White House workers, and the changing musical culture of American Indians. Future programs will examine the culture of borderlands, the relationship between culture and development, American immigrant groups, and others.

With funding provided in FY 1993, the Center will pay for trash removal connected with the Festival, pay for Festival security services, and pay the Red Cross for first aid coverage.

Smithsonian/Folkways Recordings - Folkways produces documentary recordings of American and worldwide music, performance, and verbal arts. Recent releases, such as "Music of the Rainforest," "Music of New Mexico--Native American Traditions and Hispanic Traditions," Ella Jenkins' children's recordings, and "Roots of the Blues," indicate the breadth of subject matter. Recordings in the form of compact discs, cassettes, videos and even computer discs with booklets and/or linear notes, are available to general audiences. Archival and scholarly recordings serve researchers, while children's and educational recordings reach classrooms across the nation. Major current projects include American Indian recordings, a world music and dance video encyclopedia, collaboration on educational computer software, and a series on Indonesian music. Future projects include a "Music of Americas" series, instructional videos, and a multi-media computer-based encyclopedia of American culture.

Publications - The Smithsonian Folklife Studies series consists of monographs coupled with documentary films, generally released to colleges and universities and also seen on public television. Recent releases include a film on District of Columbia firefighters and another on Korean potters. A current project traces the transformation of Muslim identity and celebration from the Middle East to India and then to the Caribbean and to New York City.

Educational Programs and Materials - The Center develops curriculum materials and offers teacher training for understanding American cultural traditions. Teacher and student guides, recordings, and videotapes on Woody Guthrie, Leadbelly, and American folk music were

developed in cooperation with the Music Educators' National Conference. The Center is working closely with the U.S. Virgin Islands Department of Education on folklife materials growing out of a program of the 1990 Festival of American Folklife and with other school systems on American Indian and African American Maroon cultures growing out of Festival programs in 1991 and 1992. The Center also uses its Summer Folklore Institute as a training ground for community scholars and annually hosts some two dozen interns from American universities.

With funding provided in FY 1993, the Center will hire an education specialist to coordinate and develop educational and curricula materials in concert with the Center's curators, researchers, and outside educators.

Traveling Exhibits - The Center produces modest traveling exhibits developed from research and Festival programs. Current exhibits include "The Grand Generation" on the folklore of the elderly, "Stand by Me" on African American urban life, and "Taking to the Streets" on Latino urban identity. In 1993, the Center will produce "Making the White House Work." Based upon a 1992 Festival of American Folklife program on the occupational culture of the White House domestic staff, the exhibit will be mounted in presidential libraries.

Quincentenary Programs - The Center has hosted several symposia and produced Festival and other public programs examining the encounter of cultures occasioned by the Columbian voyages. Publications currently in process include Seeds of the Past: Continuities of Native American Agriculture, Seeds of Commerce: Cultural Consequences of Plantation Society, and Seeds of Industry: Cultural Transformations of Manufacturing.

Archives - The Folkways Archives contains audiotapes, records, videotapes, photographic images and film, and paper files documenting folklife traditions from all parts of the United States and most regions of the world. Highlights include collections relating to American and world music, occupational lore, family folklore, immigration stories, and a variety of ethnic and regional performance traditions.

Public Service - The Center collaborates with states to develop Festival of American Folklife programs and remount them "back home." Recent projects with Hawaii, Michigan, New Mexico, and the U.S. Virgin Islands also extend to the development of educational materials and the sharing of archives. The Center works with the National Endowment for the Arts, the National Endowment for the Humanities, and the Library of Congress to develop ways of conserving America's cultural heritage.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Trust fund allotments, along with a return from concessions at the Festival of American Folklife, provide funds that help support personnel costs, program costs, and research and development costs of the Festival. Sales of Folkways records support production and archival fulfillment costs for Smithsonian/Folkways

Recordings. The Smithsonian Educational Outreach, Special Exhibition, Research Opportunities, and International Exchange Programs help support educational projects, museum exhibitions, travel to scholarly meetings, and international research.

Restricted Funds - Grants and gifts from foundations, corporations, and individuals provide funds in support of Festival programs, Smithsonian/Folkways Recordings, and other projects. In FY 1992, the Ford Foundation continued its major support of an Indonesian recording and training project. Smaller gifts and grants from the Music Performance Trust Funds, New Mexico Tourism Association, Laura Bolton Foundation, and others indicate the range of support for the Center's projects.

Government Grants - Various state and local governments provide these funds to support programs at the Festival of American Folklife. In FY 1992, the State of New Mexico provided funds to support the New Mexico program at the Festival.

Academic and Educational Programs

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	12	775	6	459	-	39	-	34	-	10
FY 1993 Estimate	13	777	6	486	-	-	-	-	-	-
FY 1994 Estimate	13	777	6	486	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - Research and education are among the principal objectives of the Smithsonian. To attain these goals, the Institution promotes scholarly and academic ties with other learned institutions and offers resources to the public as well as the academic community. Scholarly and academic ties develop and flourish through programs in higher education, outreach, and learning opportunities at the elementary and secondary levels. This line-item includes the Office of Elementary and Secondary Education (OESE) and the National Science Resources Center (NSRC). The staff of the Office of Interdisciplinary Studies, formerly included in this line-item, was transferred to other programs in the Institution in May 1992.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for Academic and Educational Programs. The Institution requires $15,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 estimate reflects a decrease of $15,000 associated with the return of Columbus Quincentenary funding from OESE.

PROGRAM:

I. Office of Elementary and Secondary Education - The Office of Elementary and Secondary Education is the Smithsonian's central policy-setting unit for educational initiatives at the prekindergarten through twelfth-grade levels. The Office draws on resources from across the Institution to reach school teachers and administrators, as well as students, in the Washington, D.C., area and nationwide. It also serves as a clearinghouse of information about Smithsonian educational materials and programs and develops frameworks for communication and collaboration among Smithsonian education units and between those units and outside educational organizations. In addition, OESE represents the Institution on the Federal

Coordinating Council on Science, Engineering, and Technology's (FCCSET) Committee on Education and Human Resources (CEHR).

An important goal of the Office is to educate young people and their teachers about the value of museums and related institutions (such as historic sites, science centers, and zoos) as learning resources. The Office seeks to expand use of these resources and the primary source materials they contain to acquire factual knowledge and analytical skills. Involving collaboration with schools, school systems, universities, and other museums, these efforts reach thousands of teachers and millions of students each year in communities across the country.

Central to Institution-wide efforts to help address critical problems in the Nation's schools, OESE programming is designed to give students practice in asking questions, in determining where and how to seek the answers, in formulating and testing hypotheses from direct evidence, and in articulating the results of their inquiry. Textbooks do not provide this kind of practice and few teachers have the time, expertise, or resources to shape these experiences for their students. Thus the Office seeks to fill an important need by bringing together scholars, teachers, and appropriate outside experts to create materials and programs based on Smithsonian collections that are not only rich in content but that teach students how to think. Further, through its teacher education programs, the Office models these teaching methods so that classroom teachers can use them with their students.

The Office of Elementary and Secondary Education's programs include:

- Professional Development for Teachers: Workshops, courses, conferences, symposia, and internships for Washington, D.C., metropolitan area teachers are offered in collaboration with the Smithsonian Institution museums. In communities nationwide, regional workshops and summer institutes offered in collaboration with national and regional organizations improve teachers' content knowledge and pedagogical skills and strengthen ties between museums and school systems by acquainting teachers with the learning resources of their local museums. Approximately 2,000 teachers were reached through these programs in FY 1992.

- Curriculum Materials for Schools: OESE's quarterly journal for elementary school teachers, Art To Zoo, reaches approximately 90,000 teachers in 20,000 schools. The Office also produces multimedia kits targeted to students and teachers at different grade levels and a range of materials based on the Office's conferences and symposia. In FY 1992, a curriculum package on political protest in American history, developed in collaboration with the National Museum of American History, was sent to more than 15,000 high school teachers nationwide. The Office's first in a series of multimedia curriculum kits for high school teachers was published by Jackdaw Publications.

- Programs and Materials for Children and Teenagers: OESE conducts national and local internship programs for high school students and produces books, computer software, and other educational materials for children of various ages. For example, in FY 1993, the Office completed the manuscript of a children's guide to the Smithsonian, to be published by the Smithsonian Institution Press. In addition, the Office's series of Art To Zoo books for young readers was begun in collaboration with an outside publisher.

- Clearinghouse Services: OESE provides information about Smithsonian-wide educational materials and programs that are available to schools and teachers nationally. In FY 1992, the Office began exploring ways to disseminate materials through Internet and other electronic means.

II. National Science Resources Center - The National Science Resources Center is a joint effort of the Smithsonian Institution and the National Academy of Sciences to improve the teaching of science in the Nation's schools. NSRC serves as a dissemination center to provide teachers, science educators, and scientists with current information about science teaching resources, program improvement strategies, and sources of expertise and assistance. NSRC also develops innovative science curriculum materials and sponsors outreach activities to focus attention on important issues in science education, encourage the sharing of exemplary materials and programs, introduce new teaching methods and technologies, and develop the leadership needed to bring about science curriculum reform at the local level.

All NSRC programs stress the involvement and collaboration of teachers and scientists, and place a special emphasis on increasing the numbers of underrepresented minorities and women engaged in the study of science. Oversight of NSRC's programs is provided by an Advisory Board appointed by the Smithsonian and the National Academy of Sciences that includes eminent scientists, executives from several major U.S. corporations, and educational leaders from across the country.

Because there is a special need to increase the scientific and technological literacy of young children, NSRC has undertaken several projects to improve the teaching of science in the Nation's elementary schools. The NSRC's Information Dissemination Program has developed a comprehensive collection and information data base of elementary science teaching resources. NSRC has published a resource guide, based on this data base, entitled Science for Children: Resources for Teachers. In addition to information about the materials in the elementary science resource collection, the guide includes a directory of science museums and other organizations across the country that provide science teaching resources and assistance to elementary school teachers.

Science and Technology for Children (STC) is a NSRC elementary science curriculum development project that is developing a complete science program for grades 1-6. Focused on topics in physical science, life science, earth science, and technology, the STC curriculum units use simple, inexpensive materials to teach science and link science to the broader elementary

school curriculum of mathematics, reading, writing, art, and social studies. Teachers across the country field-test STC units to refine and validate them.

In FY 1992, NSRC embarked on a large-scale project, the National Elementary Science Leadership Initiative (NESLI), to engage educators and scientists in improving the teaching of science in the Nation's elementary schools and in increasing the access of all students to effective elementary science instruction. The NESLI project sponsors leadership institutes to prepare teams of teachers, science supervisors, school system administrators, and scientists to spearhead efforts to improve elementary science education in their school districts. These institutes help school systems design effective in-service education programs, establish science materials support systems for teachers, and develop the community support needed to improve their science programs. Through the NESLI initiative, NSRC also provides technical assistance to school districts across the country that are working to reform their elementary science programs. In addition, NESLI is enabling the NSRC to sponsor a series of working conferences to help scientists and engineers become effectively involved in the improvement of science education in the schools.

NONAPPROPRIATED SOURCES OF FUNDING:

I. Office of Elementary and Secondary Education:

Unrestricted General and Special Purpose Funds - OESE's internship programs for young people are supported by annual allotments. Trust funds also support OESE's publications program as well as its Columbus Quincentenary early childhood development project on "The Peoples of the Americas." The major effort of the publishing program is a series of curriculum kits for teachers to be published by Jackdaw Publications.

Restricted Funds - Corporate grants support OESE efforts for teachers. For example, in FY 1992, a grant from Brother International Corporation supported the development, publication, and distribution of curriculum materials for schools; and a grant from an anonymous donor funded summer institutes conducted at sites around the country in collaboration with the National Faculty for Humanities, Arts and Sciences.

II. National Science Resources Center:

Unrestricted General and Special Purpose Funds - An allotment from unrestricted funds provides partial funding for the core operations of the National Science Resources Center. These resources provide support for salaries and the core support necessary to develop, with the assistance of the National Academy of Sciences, program initiatives to attract further support from the private sector.

Assistant Secretary for External Affairs

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	13	807	51	2,506	-	120	-	539	-	68
FY 1993 Estimate	10	714	49	2,890	-	428	-	540	-	11
FY 1994 Estimate	10	720	49	2,890	-	423	-	503	-	11

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of the Assistant Secretary for External Affairs (OASEA) was established in 1988 to coordinate the Institution's external affairs activities and advise the Secretary and senior management officials on membership policies and programs, media activities, visitor information, and issues affecting the Institution's public activities and their impact on external constituencies, both national and international. This line-item includes the immediate Office of the Assistant Secretary for External Affairs; the Office of Telecommunications (OTC), which produces programs for radio, film, and television relating to Smithsonian research activities; and the Visitor Information and Associates' Reception Center (VIARC), which coordinates and provides Institution-wide information and assistance programs for the public, Associate members, Smithsonian staff, and volunteers. Also included in this line-item is the recently combined Office of Special Events/Conference Services, which coordinates and provides special events and conference-planning services sponsored and co-sponsored by the Smithsonian Institution.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the offices included under the Assistant Secretary for External Affairs. The Institution requires $6,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM:

I. Office of the Assistant Secretary for External Affairs - The Office of the Assistant Secretary for External Affairs focuses on matters relating to the Institution's many external constituencies and their needs and concerns. The Office oversees the Institution's impact beyond the National Mall through supervision of its component units individually and

collectively, through its own outreach efforts, and through addressing the role of the Smithsonian in national and international affairs. The offices reporting to the Assistant Secretary include the Office of Telecommunications; the Visitor Information and Associates' Reception Center; the Office of Special Events/Conference Services; the Smithsonian Institution Press; the Office of International Relations; and the Smithsonian Associate programs.

II. Office of Telecommunications - The Office of Telecommunications collaborates with Smithsonian research and professional staff to produce video, film, and radio programs relating to a wide range of the Institution's activities. Through national and international distribution, these programs expand the Institution's audiences and support its outreach objectives.

In FY 1992, OTC produced a variety of videos for exhibitions in the Washington metropolitan area museums and for traveling exhibitions. Notable among these were five complementary programs for the National Museum of American History's (NMAH) Columbus Quincentenary exhibition, "American Encounters." The videos explore the richly plural society of New Mexico by looking at American Indian, Hispanic, and Anglo American traditions over the past 450 years. OTC also produced the opening videotape for the Sackler Gallery exhibition "Ancient Japan," and a short video for the joint Smithsonian Institution Traveling Exhibition Service's (SITES) and NMAH's exhibition, "Who's in Charge?" looking at the struggle between labor and management for control of the American workplace since the Industrial Revolution.

OTC helped to create two short videos for "The World of Ecosystems," a new experimental exhibition at the National Museum of Natural History (NMNH). One defines an ecosystem; the other shows how and why scientists simulate natural ecosystems in the laboratory. At the Anacostia Museum, an OTC video epilogue concluded the exhibition "To Achieve These Rights: The Struggle for Equality and Self-Determination in the District of Columbia, 1791-1978." In addition, the Office produced a 12-minute video on the making of English silver that will travel to 12 cities in Canada and the United States with an exhibition organized by SITES on work by turn-of-the-century silversmith Omar Ramsden.

Field production began on two videos for major exhibitions on American music. One OTC crew did videotaping in New York and California for "Beyond Category: The Musical Genius of Duke Ellington," which will open at the National Museum of American History (NMAH) in April 1993. Another crew journeyed to Memphis to shoot footage for an exhibit on the roots of rock 'n roll, scheduled to open at NMAH in 1994. OTC is also producing two compact disc-interactive (CD-I) programs, "The Downhome Blues" and "The Uptown Blues," in cooperation with Smithsonian/Folkways.

Short, professionally produced videos are proving their value as a way to preview and assist in fund-raising efforts for planned exhibitions. OTC filled requests for a 5-minute tape for the National Postal Museum, a short video of excerpts from Smithsonian Jazz Masterworks

Orchestra concerts to promote the orchestra and raise money for future seasons, and a pilot program for the National Portrait Gallery (NPG) on "Journalists of World War II."

In FY 1992, "Dream Window: Reflections on the Japanese Garden," an OTC film that explores the centuries-old aesthetic traditions of Japanese gardens, had its world premier at the Smithsonian. It aired nationally on PBS in late 1992 and is being distributed to the home and educational markets, and to television networks abroad.

The second full season for new initiatives from Radio Smithsonian has been extremely rewarding. Beginning in January 1992, "Spirits of the Present: The Legacy from Native America" aired on 410 stations in North America--207 in the United States and 203 in Canada--making it the most widely broadcast special series ever distributed by American Public Radio (APR). The 13-program series will be repeated over APR stations in fall 1992. "Spirits of the Present" is also available on audiocassette.

The initial "Folk Masters" radio series jointly produced by Radio Smithsonian, WETA-FM, and Carnegie Hall, won the Gold Award for 1992 in the music performance category from the Corporation for Public Broadcasting. Originally aired by more than 175 stations nationwide, the first year's series was redistributed by APR for repeat broadcasts. The second season of "Folk Masters"--recorded this year at the Barns of Wolf Trap--was broadcast on APR from September through December 1992.

Also on radio, "Speakers Corner with Roger Mudd," a weekly series co-produced by Radio Smithsonian and the William Benton Broadcast Project, brought provocative lectures by some of the best thinkers of our times to listeners nationwide. Jazz enthusiast Julian Bond hosted a special produced by Radio Smithsonian based on the 1991 concerts of the Smithsonian Jazz Masterworks Orchestra. The program aired over National Public Radio during Black History Month.

III. Visitor Information and Associates' Reception Center - The Visitor Information and Associates' Reception Center is a multi-segment central information and support organization responsible for the following major activities, some which operate seven days a week: the Smithsonian Information Center, the Institution's primary orientation and information facility for visitors; the Public Inquiry Mail and Telephone Information Service, the Smithsonian's central information and referral point for public correspondence and phone inquiries; the Museum Information Desk Program through which volunteers are trained and scheduled to staff information desks in most of the Institution's Washington metropolitan area museums; the Castle Docent Program through which tours of the Smithsonian Institution Building are conducted; the Behind-the-Scenes Volunteer Program, a registration and placement activity for volunteers working in independent projects; a Pre-visit Education Program which provides the principal Smithsonian interface with the local, national and international tour and travel industry; an Exterior Graphic Information System through which outdoors directional assistance is provided to visitors; and an Information Resource Division which maintains computer-based

information systems and produces the variety of printed reference materials, information aids and publications that support all VIARC public information activities and service programs.

Since opening in late 1989, the Smithsonian Information Center has served more than 5 million visitors. Open daily at 9:00 a.m., the Center offers two orientation theaters featuring an award-winning, 20-minute video overview of the Institution; interactive touch-screen video programs on the Smithsonian in seven languages; scale models of Washington's monumental core; electronic wall maps and interactive touch-screen programs highlighting popular Capital attractions; printed guides in seven languages; and volunteer information specialists to answer questions and provide direction. A public TTY, the Institution's first, assists hearing-impaired visitors.

In FY 1992, some 600 volunteer information specialists provided visitor assistance seven days a week at museum information desks and the Smithsonian Information Center. VIARC provided additional volunteer support during extended spring and summer hours and to the Experimental Gallery during the "Etiquette of the Undercaste" exhibition. A special pass system was designed and implemented for NASM's "Star Trek" exhibition requiring the scheduling and training of 96 additional volunteers. In-service volunteer training included tours of all exhibitions featuring culturally diverse aspects. Efforts are underway to recruit and train Volunteer Information Specialists for the Freer Gallery and National Postal Museum. As a result of recruitment efforts to broaden the ethnic base of the volunteer corps, 20 percent of all new volunteer information specialists in FY 1992 represented minority constituencies.

In FY 1992, docent-led tours of the Castle increased 30 percent and included tours in Spanish, and spring and fall tours of the Enid A. Haupt Garden. Additionally, VIARC continued to promote previsit education through active participation in local, national, and international tour and travel marketplaces, meetings, and conferences.

Automated office systems continue to streamline response to mail and telephone inquiries. In FY 1992, some 43,000 pieces of correspondence and 368,000 telephone inquiries were handled by VIARC staff and volunteers. VIARC's expanded on-line research tools are now available to multiple users. To assist the public, daily Dial-a-Museum and Sky Watcher recordings were produced as well as recordings on ethnic celebrations and Institutional events. In cooperation with the Office of Public Affairs, VIARC added a daily recording of events in Spanish.

VIARC's upgraded software programs and enhanced graphics capabilities have increased the efficiency and productivity of the Information Resources Division. In FY 1992, the Division produced some 13 publications in addition to monthly pan-Institutional Calendars of Events and Exhibitions Directories. The Division also reviewed 15 publication drafts produced by other Smithsonian bureaus and outside organizations. The staff maintained the outdoor orientation pylons and updated the interactive components and the electronic maps in the Information Center to reflect the most current information. Monthly orientations were provided to key staff

members of public affairs, public programs and exhibitions offices to introduce them to VIARC services and exchange information on their needs.

VIARC's Behind-the-Scenes Volunteer Program continued registering, recruiting, and placing volunteers throughout the Institution for a myriad of independent projects and translation activities. An in-house records management system, fully implemented in FY 1992, greatly streamlined program operations. During FY 1992, 368 volunteers were placed and 326 documents were translated. VIARC's annual volunteer survey documented that 4,874 volunteers contributed 476,370 hours of service to the Smithsonian during FY 1992.

IV. Office of Special Events/Conference Services - The Office of Special Events/Conference Services arranges luncheons, receptions, and dinners associated with exhibition and museum openings, seminars, lectures, and meetings sponsored and co-sponsored by the Institution. The Office also provides expertise to Smithsonian bureaus and offices on issues of domestic and international protocol. Nearly 1,000 requests are received, screened, and answered by the Office annually.

The Office also plans and coordinates the logistical arrangements for Smithsonian-sponsored and co-sponsored seminars and conferences. The Office functions as a clearinghouse for information on off-campus and on-campus conference facilities and support services and maintains a strong network with Washington-based conference support organizations. The Office publishes a quarterly calendar of future Smithsonian conferences and maintains a record of past conferences. During FY 1992, the Office managed 18 varied symposia and conferences ranging in size from 15 to more than 500 persons.

NONAPPROPRIATED SOURCES OF FUNDING:

I. Office of the Assistant Secretary for External Affairs:

Unrestricted General and Special Purpose Funds - An annual allotment provides for the salaries, benefits, and support costs of the immediate office.

Restricted Funds - Individual gifts and grants from private foundations and corporations provide funds for specific research programs.

Government Grants and Contracts - In FY 1992, the U.S. Man and the Biosphere Program under the Department of State provided a grant to support expenses for meetings of the Program at the Institution.

II. Office of Telecommunications:

Unrestricted General and Special Purpose Funds - An annual operating allotment provides for the salaries, benefits, and costs associated with the production of educational and

informational materials for the electronic media. The sale of film, video, and audio programs provides additional funds.

Restricted Funds - Individual gifts and grants from private foundations and corporations provide these funds, used by OTC for specific programs. In FY 1992, a consortium of Japanese companies, including Kajima Corporation, Hitachi Limited, and the American Family Life Assurance Company, provided grants for a major film on the cultural significance of Japanese gardens. Funds from the Lila Wallace-Readers' Digest Fund and the Ruth Mott Fund supported production of the radio series, "Folk Masters," featuring live performances of a wide range of traditional music. The Corporation for Public Broadcasting provided funding for two radio specials following up on the successful series "Spirits of the Present: The Legacy from Native America."

III. Visitor Information and Associates' Reception Center:

Unrestricted General and Special Purpose Funds - Annual operating allotments support the Smithsonian's Information Center and VIARC's work as the public service office responsible for Institution-wide information and assistance activities.

IV. Office of Special Events/Conference Services:

Unrestricted General and Special Purpose Funds - Annual operating allotments provide for the salaries, benefits, and support costs for these offices.

Smithsonian Institution Press

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	29	1,530	41	19,511	-	141	-	48	-	2
FY 1993 Estimate	30	1,500	41	21,704	-	-	-	-	-	-
FY 1994 Estimate	30	1,544	41	25,113	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - A member of the Association of American University Presses since 1966, the Smithsonian Institution Press (SIP) is a multi-media publisher that contributes to the Smithsonian mission by creating and distributing high-quality books, recordings, and videos reflecting the Institution's research, collections, and interests as prepared by Smithsonian scientists, historians, curators, and scholars from around the world. SIP aims to contribute to the Trust funds of the Institution by balancing publications directed to specialists and broad audiences.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for Smithsonian Institution Press. The Institution requires $44,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Smithsonian Institution Press has six programmatic divisions: the University Press, Series Section, Development Division, Smithsonian Collection of Recordings, Video Division, and Smithsonian Books. While it is possible to separate some activities under Federal funding and others under Trust funding, the programs themselves are intertwined and cross-marketed so that total productivity is more than the sum of the parts.

University Press Division - This division publishes works of scholarship and general interest, which are sold to the academic community, libraries, and the public through retail trade distribution. Subject areas include art, archeology, anthropology, aviation, folklore, history, material culture, music, and science. The University Press also publishes Smithsonian Year, the Institution's annual report and supplementary volumes, for free distribution throughout the Institution and to Congress, depository libraries, and the international scholarly

community. It also publishes the American Historical Association's annual report and the bylaws of the Board of Regents of the Smithsonian.

The University Press listed 80 new titles in its FY 1993 catalogues. Notable among them, and reflecting the breadth of the Press's reflection of Institution concerns were Faces of America by Pablo Delano; The Origins of Photojournalism in America by Michael L. Carlebach; The Universal Man: Theodore von Karman's Life in Aeronautics by Michael H. Gorn; "We'll Understand it Better By and By": Pioneering African-American Gospel Composers edited by Bernice Johnson Reagon; Chemistry Imagined: Reflections on Science by Roald Hoffmann and Vivian Torrence; New Voices in Native American Literary Criticism edited by Arnold Krupat; and Parascript: Parasites and the Language of Evolution by Daniel Brooks and Deborah McClellan.

Series Section - This division, supported solely by Federal funds, reports research in the Smithsonian Contributions and Smithsonian Studies Series, distributed free to depository libraries and throughout the scholarly community. Monographs published in FY 1992 include A New Genus and Species of Boxfish from the Oligocene of Moravia, the Second Fossil Representative of the Family, by James C. Tyler and Ruzena Gregorova (Smithsonian Contributions to Paleobiology, 171); Demography and Natural History of the Common Fruit Bat, Artibeus jamaicensis, on Barro Colorado Island, Panama, by Charles O. Handley et al. (Smithsonian Contributions to Zoology, 511); and Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, by Bruce B. Collette et al. (Smithsonian Contributions to Zoology, 525).

Development Division - This division publishes popular books for adults and children. Developed with Smithsonian museums and frequently written by curators, these books relate directly to Smithsonian research interests and collections and are sold by the Press to Smithsonian markets and by commercial publishers to the general public. In FY 1993 lead titles included Smithsonian Timelines of the Ancient World, a comprehensive visual reference volume co-published with Dorling Kindersley, and Blue Planet, a nonfiction science book based on the IMAX film. FY 1993 saw the revision of three individual museum guidebooks and ongoing sales for strong backlist titles such as the Smithsonian Treasury Series, Smithsonian picture tour books, and museum guides in English, French, German, Japanese, and Spanish. Current project development includes a continuity series of children's books undertaken in collaboration with the Library of Congress and the American Library Association; a popular book-and-CD song collection, and a direct mail appointment book program.

Smithsonian Collection of Recordings - This division, financed entirely with nonappropriated Trust funds, publishes popular and scholarly recordings primarily suitable for marketing by direct mail as well as selectively through retail distribution. During FY 1992, the first volumes in the American Songbook continuity series on American 20th-century songwriters--on Harold Arlen, Irving Berlin, George Gershwin, Jerome Kern, Cole Porter, Rodgers and Hart--were released. A four CD/cassette box set entitled From This Moment On: The Songs of Cole Porter also released in FY 1992, presents 84 of Porter's compositions

recorded by various artists from 1928 to 1986. This anthology received a highly favorable review in Time magazine. In a joint effort with the Center for Southern Folklore in Memphis, the Smithsonian Collection of Recordings is co-producing a CD entitled Memphis Rocks: Rockabilly Music in Memphis, 1950s-Present. Mastering is also in progress for a Rock and Roll continuity series, and market tests are being conducted on Love Songs of World War II, The Smithsonian Collection of Classic Blues, and Great American Orchestras.

Video Division - This new division, financed with nonappropriated Trust funds, plans to acquire and distribute videotapes that relate to Smithsonian interest and the Press's mission. They will be for sale to the general public as the Smithsonian Video. Titles are being acquired in American and world history, air and space, anthropology, archeology, ethnic cultures, literature, nature, and the performing arts. In FY 1992, the Video division produced Benjamin O. Davis, Jr.: American and completed work on the Samuel Beckett project Endgame in collaboration with the Visual Press of the University of Maryland.

Smithsonian Books - This division, financed entirely with nonappropriated Trust funds, publishes books for the Smithsonian Associates on subjects relating to the Institution's collections and research interests. Marketed primarily by direct mail to the Associates and other lists, these books are also available to the general public through licensing arrangements with several trade publishers. In FY 1992, the division published The Smithsonian Book of Books, a notable volume about the history of books; Washington, D.C., A Smithsonian Book of the Nation's Capital; and Fossils. These widely diverse titles join an impressive and popular list that includes: In the Age of Mankind: The Smithsonian Book of Human Evolution; The Smithsonian Book of Flight; Lords of the Air: The Smithsonian Book of Birds; The Smithsonian Book of North American Indians: Before the Coming of the Europeans.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Smithsonian Institution Press has three divisions financed with nonappropriated Trust funds: Smithsonian Books, Smithsonian Collection of Recordings, and the Video Division. The sale of Trust-funded books, recordings, videos, and royalties thus derived provide the resources that support development, editorial, design, production, marketing, warehousing, and distribution expenditures as well as supply additional resources to the general Trust funds of the Smithsonian Institution.

INTERNATIONAL CENTER

International Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	15	847	9	585	-	126	-	725	-	159
FY 1993 Estimate	12	822	9	664	-	50	-	45	-	38
FY 1994 Estimate	10	747	9	664	-	50	-	45	-	38

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The International Center (IC) monitors, coordinates, and fosters the Smithsonian's international activities and interests through the work of independent divisions including the Office of International Relations (OIR), International Gallery (IG), Institute of the Americas (IA) Project, the Institution's proposed successor to the Office of Quincentenary Programs (OQP), Smithsonian Institution/Man and the Biosphere Biological Diversity Program (SI/MAB), and Environmental Awareness (EAP) Program. Through the International Center, the Smithsonian also supports international research programs such as the Council of American Overseas Research Centers (CAORC). As a result of the Institution's Restructuring Plan implemented in FY 1993, the Smithsonian Institution/Man and the Biosphere Program will be incorporated into an existing Smithsonian bureau (yet to be determined) and will continue to operate on grant funds.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the International Center. The Institution requires $8,000 for Necessary Pay for existing staff funded in this line-item. The FY 1994 request reflects a decrease of 2 workyears and $83,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The International Center was established in 1983 to coordinate the Institution's international interests and facilitate its work abroad with a global network of collaborators and research material. Beyond this, the International Center has sought to place the Institution's scholarly work at the service of the general public, assisting the Institution's constituents around the world in understanding an ever-expanding body of information. Located in the S. Dillon Ripley Center of the Quadrangle Complex, the International Center provides facilities for display and discourse on a wide range of international matters.

International Center programs generated from both within and outside the Smithsonian include scholarly symposia and public forums, exhibitions, lectures, performances, and workshops. Policy guidance and oversight of the Center and its individual offices, as well as the broad range of international programs undertaken throughout the Institution, are provided by an International Activities Council composed of the assistant secretaries for the Sciences, for the Arts and Humanities, for Education and Public Service, and for External Affairs.

Office of International Relations - The Office of International Relations, which reports to the Assistant Secretary for External Affairs, provides basic liaison support and coordination for the international aspects of Smithsonian research and museum programs. This responsibility includes:

- coordinating Smithsonian international interests;
- guiding Smithsonian staff in the conduct of international relations and providing information on foreign affairs that affects Smithsonian work abroad;
- providing expert advice on or management of international projects in the general interests of the Smithsonian;
- increasing access to international organizations and agencies in support of efforts by the Assistant Secretary for External Affairs to draw on nontraditional resources;
- facilitating the international research of Smithsonian staff and the participation by staff in meetings abroad by helping with communications and logistical details;
- drafting official correspondence and negotiating agreements with international cooperative programs;
- assisting foreign colleagues and officials who visit the Smithsonian or participate in its programs in the United States; and
- providing travel documentation, including passports and visas, for Smithsonian travelers as well as visa sponsorship for foreign colleagues traveling to the Smithsonian.

The Office also manages two grant programs--the Smithsonian Foreign Currency Program and the International Exchange Program--that facilitate international cooperation for Smithsonian work abroad.

International Gallery - The International Gallery, which reports to the Assistant Secretary for the Arts and Humanities, presents exhibitions with disciplinary points of view or cultural perspectives that either complement the work of Smithsonian bureaus or represent

areas outside the scope of the National Collections. Exhibitions recently presented in or planned for the International Gallery include "Degenerate Art: The Fate of the Avant-Garde in Nazi Germany," an examination of modern works condemned by the authorities in Nazi Germany; "Art as Activist: Revolutionary Posters from Eastern Europe," a Smithsonian Institution Traveling Exhibition Service show; and "Imperial Austria: Treasures of Art, Arms and Armor from the State of Styria," an exhibition from the largest historic armory in the world. Public and scholarly programs are planned in conjunction with International Gallery exhibitions.

Institute of the Americas Project - In FY 1994, the Smithsonian will have the results of a needs assessment for an Institute of the Americas, intended to foster understanding of the challenges faced by the western hemisphere. A multi-disciplinary and multilateral research center focused on cultural and scientific issues of importance for the Americas, the proposed Institute has evolved from programming developed for the Columbus Quincentenary, which emphasized the need to address concerns of constituencies previously not well represented at the Smithsonian. The Quincentenary created a network of collaborators, both scholars and institutions, throughout the Americas, and the Institute will continue service as a forum for scholarly and institutional exchanges.

The Institute of the Americas Project reports to the Assistant Secretary for the Arts and Humanities. Its work will be directed by an Advisory Council of prominent scholars and other individuals from the United States, Latin America, and the Caribbean. The Council will help establish the Institute's goals, identify problems or issues for the Institute's attention, and secure additional funding.

Smithsonian Institution/Man and the Biosphere Biological Diversity Program: The Smithsonian Institution/Man and the Biosphere Biological Diversity Program (SI/MAB) was established in 1986 with two major objectives:

- to provide biodiversity sampling protocols for protected areas and other highly diverse ecosystems of the world so that data from diverse sites can be compared;

- to strengthen the professional short-term training capabilities of host countries so that an increasing number of managers and scientists in these developing countries can address their conservation priorities.

SI/MAB reports to the Assistant Secretary for the Sciences. SI/MAB works to give biologists, conservationists, nature reserve managers, and related professionals from developing countries the skills to conduct their own research in biodiversity conservation. The Program has initiated valuable institutional linkages, and several of its researchers have subsequently undertaken fieldwork with their Smithsonian counterparts. SI/MAB has organized training workshops for more than 450 participants in more than 20 countries in Latin America, the Caribbean, and the United States, and it is currently expanding its workshop program to Asia and Africa. UNESCO's Man and the Biosphere Program, the World Heritage Fund, the United States Agency for International Development (USAID), the United States Man and the

Biosphere Program (US-MAB), the World Wildlife Fund, and Conservation International have helped fund SI/MAB's training activities over the last five years.

As a result of the Institution's Restructuring Plan implemented in FY 1993, the Smithsonian Institution/Man and the Biosphere Program will be incorporated into an existing Smithsonian bureau (yet to be determined) and will continue to operate on grant funds.

Environmental Awareness Program - The Environmental Awareness Program (EAP), which reports to the Assistant Secretary for the Sciences, was established in 1990 to address growing concerns about the world's environment. The Program provides a bridge between science and policy by gathering and disseminating information about a wide range of environmental issues. The Program is administered by the International Activities Council and works with Smithsonian bureaus and outside groups to reach the general public and professional audiences across the country through exhibitions, publications, conferences, and workshops. The Program responds to public inquiries and participates in projects planned by other groups.

In FY 1992, EAP initiated a three-year project on ocean conservation issues that began with the National Forum on Ocean Conservation and publication of its proceedings. A traveling exhibition, Ocean Planet, will open at NMNH in April 1995. Each segment of the project explores a wide variety of marine-related environmental issues affecting near-shore and open oceans, including loss of biological diversity, pollution, use of natural resources, coastal development, and global change. Major funding for the oceans project has been committed by private foundations, corporate sponsors and government agencies.

To encourage more accurate and informed news coverage of environmental issues, EAP continues to produce informational programs for the news media. In FY 1992, EAP co-sponsored a series of briefings for national news media in preparation for the United Nations Conference on Environment and Development held in June 1992. The Office continues to distribute free copies of "A Better World Starts at Home," a colorful poster that provides information on environmental issues and tips for becoming an environmentally responsible household. Following a major study on environmental programs and exhibits in the Nation's museums, EAP continues to answer requests for information and advice on museum-based environmental education.

Council of American Overseas Research Centers - American overseas research centers are the recognized extensions of the advanced foreign research programs of major American universities and museums. They constitute an important channel through which current research about other countries invigorates American institutions. Centers located in Italy, Greece, Turkey, Cyprus, Tunisia, Morocco, Iran, Egypt, Jordan, Israel, Yemen, India, Pakistan, and Hong Kong have provided fellowship funds, access to local research resources, logistical support, liaison with host-country officials, and library and housing facilities to thousands of American academics. Their physical facilities serve as the principal point of contact for U.S. scholars and their host-country colleagues, and publication and seminar programs disseminate

research results abroad and throughout the United States. While the centers differ greatly from each other in size, program, and tradition, their private structure and the scholarly research produced through their sponsorship make them respected focuses of American academia in the countries in which they operate.

The Council of American Overseas Research Centers (CAORC) facilitates and coordinates the work of its 14 member institutions. Founded in 1981, the Council serves as the forum through which member centers identify and address common concerns. It fosters collaboration among research centers to strengthen academic programs and administrative procedures, and it sponsors international research projects. The Council undertakes the establishment of new centers in countries and regions where research exchange opportunities are lacking.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Allotments provide funds to support planning and development of research and exhibition programs for the International Center.

Restricted Funds - Restricted funds consist of gifts, grants, and other donations from individuals, foundations, organizations, and corporations for specific purposes, such as undertaking research abroad, supporting exchanges of researchers and collections, mounting exhibitions and staging performances, screening of films, and other public presentations in the International Center. Funding for the oceans project and for SI/MAB training programs has been committed by several private and public sources for 1993 and 1994.

ADMINISTRATION

Administration

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	347	26,628	222	15,167	2	3,723	-	215	-	-
FY 1993 Estimate	390	26,828	216	16,559	2	495	-	103	-	-
FY 1994 Estimate	390	27,352	216	16,559	2	508	-	100	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - Administration includes executive management and related functions provided by the Offices of the Secretary, Under Secretary, Assistant Secretary for Finance and Administration, and Assistant Secretary for Institutional Initiatives. Offices reporting to the Under Secretary include the General Counsel, Government Relations, Policy and Program Development, and Public Affairs. The Assistant Secretary for Finance and Administration oversees a range of administrative and service offices, including the Office of the Comptroller (formerly Accounting and Financial Services), Contracting and Property Management, Equal Employment and Minority Affairs, Financial and Management Analysis, Human Resources, Information Resources Management, Ombudsman, Planning and Budget, Printing and Photographic Services, Risk Management, Sponsored Projects, Travel Services, and Treasurer. The Office of Facilities Services also reports to the Assistant Secretary for Finance and Administration and is responsible for Architectural History and Historic Preservation, Environmental Management and Safety, Design and Construction, Plant Services, and Protection Services (the latter three offices appear in the Facilities section of the budget). The Assistant Secretary for Institutional Initiatives oversees the Office of Development, included in this line-item, and the National Campaign of the National Museum of the American Indian (NMAI), included in the NMAI line-item. The Office of Inspector General is also included in the Administration line-item. Administrative units receive both appropriated funds and nonappropriated Trust funds for their operating expenses in approximate balance to the overall funding of the Institution. Currently, some offices, such as Sponsored Projects, are entirely supported with Trust funds.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for Administration. The Institution requires $392,000 for Necessary Pay for existing staff

funded in this line-item. The FY 1994 estimate reflects a decrease of $15,000 associated with the return of Columbus Quincentenary funding for the Office of Public Affairs.

Included in the Administration request but justified in the Mandatory Costs Increases section of this budget are funds to cover Workers' Compensation ($39,000) and Unemployment Compensation ($108,000).

PROGRAM - The Office of the Secretary, in concert with the Office of the Under Secretary, oversees the Smithsonian Institution. The following offices report to the Under Secretary.

The Office of the General Counsel (OGC) provides legal advice and services to the Smithsonian Board of Regents, Secretary and Under Secretary, and other managers on the administration of programs; coordinates and oversees litigation and other adversarial proceedings to which the Institution is a party; disposes of administrative claims against the Smithsonian; and monitors developments in the law generally for application to Smithsonian programs. The Office also provides legal advice and services to the Woodrow Wilson International Center for Scholars, an affiliated organization. Significant projects in FY 1992 included the continued negotiation of agreements with the State and City of New York concerning the funding and renovation of the U.S. Custom House for use by the National Museum of the American Indian; the Institution's participation in biological diversity research and conservation programs and debt-for-nature agreements; and the negotiations for the establishment of the Mpala Ranch Project in Kenya, Africa. In FY 1992, the OGC handled over 900 referrals, including 190 collection management matters; 180 contracts; 91 estates; 41 administrative complaints and lawsuits; and 51 tort, personal property, and bankruptcy claims and garnishment actions.

The Office of Government Relations (OGR) maintains the Institution's relationships with Congress; presents Smithsonian policies, programs, and plans to Congress; and develops and clears legislative proposals and supplemental materials. It also coordinates and oversees Smithsonian participation at legislative hearings; serves as liaison with Federal agencies, state and local governments and organizations with related interests; and provides constituent services for Congress and the Administration.

The Office of Policy and Program Development (OPPD) converts Institutional priorities, as determined by the Board of Regents and the Secretary, into policy and program initiatives. In consultation with internal units and external specialists, OPPD undertakes research, provides analyses, and issues reports on matters identified by the Regents and Secretary and develops policy and programmatic recommendations for consideration by senior-level management. Current projects include helping to create a vision for the Institution in the 21st century and planning for the commemoration of the Smithsonian's 150th anniversary in 1996.

The Office of Public Affairs (OPA) coordinates and oversees public affairs, publicity, promotion, publications, advertising, and other information programs of the Smithsonian in

conjunction with bureaus and offices. The Office develops programs to advance the Institution's objectives by acquainting the public with research, exhibitions, public programs, and other activities. OPA coordinates pan-Institutional publicity campaigns and undertakes publicity for those Smithsonian units that do not have a public affairs specialist. In addition, OPA does weekly radio interviews about current Smithsonian events and exhibits. OPA's publications include a monthly events highlights calendar, Research Reports (a quarterly research bulletin), Smithsonian Runner (a bi-monthly newsletter for Native Americans), The Torch (the employee newspaper), and a wide variety of visitor and special resource publications. OPA uses multi-media advertising to encourage culturally diverse audiences to take advantage of the many resources of the Smithsonian. Targeted groups include African American, Latino, Native American, and Asian American audiences.

The Assistant Secretary for Finance and Administration oversees financial, administrative, and facilities services. Under the direction of the Assistant Secretary, Total Quality Management (TQM) concepts and practices were introduced throughout all Finance and Administration (F&A) offices. Over time, TQM will change the way F&A offices perform their service functions with "quality" being at the forefront of all operational decisions. TQM methods will not only continually improve these services, but it will also reduce inefficiencies and increase employee satisfaction. The following organizations, listed alphabetically, report to the Assistant Secretary for Finance and Administration.

The Office of Architectural and Historic Preservation (OAHP), under the Office of Facilities Services, coordinates historic preservation planning and implements the Institution's historic preservation policy and practice. The Office also collects and analyzes information on the history of existing and future buildings of the Institution and maintains the OAHP Castle Collection of antique furniture housed in the Smithsonian Institution and Arts and Industries buildings.

The Office of the Comptroller (OC) accounts for and reports on the Smithsonian's assets and liabilities by collecting, authenticating, classifying, and recording the financial transactions of the Institution. OC reports financial information to the various levels of Smithsonian management and to external organizations and maintains the official records of the accounts.

The Office of Contracting and Property Management (OCPM) is the principal acquisition office for the Smithsonian Institution. OCPM contracts for the majority of goods and various sophisticated equipment and specialized services used to support Smithsonian programs, projects, and facilities, including major construction, renovation and alteration projects. The Office provides acquisition policy guidance, contract administration and property management to all Smithsonian activities. OCPM also oversees the procurement authority delegated to various Smithsonian bureaus and offices. The Office provides logistical support to all units through a judiciously expanding program of purchasing in bulk common-use supplies and forms for central storage and redistribution. In addition, OCPM coordinates major projects that benefit Smithsonian programs.

The Office of Environmental Management and Safety (OEMS), part of Facilities Services, monitors environmental management, fire protection and prevention, and occupational and visitor safety programs. OEMS also disseminates and implements the requirements of all new fire protection, safety, occupational health, and environmental laws, regulations, and standards. In FY 1992, OEMS completed comprehensive fire protection, safety, and environmental program evaluations at 23 Smithsonian facilities, including the National Zoological Park. OEMS monitored design and remediation requirements for the upgrade of underground storage tanks pursuant to pending regulatory requirements. Hazardous waste minimization continued to be promoted through training and technology transfer. The Office provided oversight of the Smithsonian's Asbestos Management Program, including continuing to monitor the results of the Institution-wide Asbestos Assessment Survey; revised contractor removal specifications; and developed an operations and maintenance plan for asbestos-containing building materials. In addition, OEMS provided ergonomic consultation to Smithsonian staff and volunteers.

The Office of Equal Employment and Minority Affairs (OEEMA) directs, oversees, and reports on the Smithsonian's efforts to promote cultural diversity, equal employment, and affirmative action goals throughout the Institution. The responsibilities of the Office include the enhancement of cultural diversity/affirmative action plans; the establishment and implementation of a small and disadvantaged business utilization program; the establishment and maintenance of an applicant resource data base to assist senior management in identifying a diverse pool of potential employment candidates; the promotion of increased focus on the utilization and accommodation of people with disabilities; and the development of a system for monitoring, evaluating, and reporting on the Smithsonian's accomplishments in these areas.

The Office of Facilities Services (OFS) is responsible for creating the physical environment that enables the Institution to accomplish its mission. The Office provides leadership and oversight for physical plant operations, maintenance, repair, and improvement; protection services, including physical security; medical services and occupational health; safety, fire protection, industrial hygiene, and management of the environment; planning, design, and construction of new facilities; mail services; transportation management; grounds maintenance and horticultural services; audiovisual services; and architectural history and historic preservation. The Office integrates the activities of the Facilities Services Group (FSG) which includes the Offices of Architectural History and Historic Preservation, Design and Construction, Environmental Management and Safety, Plant Services, and Protection Services. Advocates of a strong vision of quality service to the Institution and the public and of continuous improvement, the OFS staff serves as a facilitator for change and growth within the Facilities Services Group; sets priorities, goals and objectives; analyzes trends; evaluates program effectiveness and delivery; develops ways to improve the quality, timeliness and cost effectiveness of the total facilities management program; promotes development of a diverse and professional workforce; and fosters staff pride and teamwork.

The Office of Financial and Management Analysis (OFMA) assists Smithsonian management in increasing the efficiency and effectiveness of the Institution through financial

and management studies and reviews, dissemination of Institutional financial policy and procedural directives, coordination of the Internal Controls Review Program, and design and control of official Smithsonian forms.

The Office of Human Resources (OHR) plans and directs a comprehensive program of human resources management for the Smithsonian's diverse employee population. Within the framework of public policy, law, and regulation, the Office provides leadership for a range of personnel services and program activities responsive to the work force needs of the Institution. Among the numerous areas of responsibility assigned to OHR are recruitment and staffing, employee orientation, position management and classification, the merit promotion program, pay and performance systems, benefits administration, technical policy guidance, employee and labor management relations, training and development, advisory services, employee counseling, and personnel program evaluation. Additionally, OHR oversees such programs as workers' compensation and unemployment insurance, as well as automated personnel processing and record-keeping systems.

The Office of Information Resources Management (OIRM) provides central computing and telecommunications services and leadership in information technology for the various offices and bureaus of the Institution. OIRM recently acquired and installed a new computer to support the Smithsonian Financial System (SFS), which is planned for implementation in upcoming months, and to support other existing Institutional applications. The new Smithsonian Institution Research Information System (SIRIS) was acquired to replace the existing bibliographic information system, and will be installed and phased during fiscal years 1993 and 1994. During FY 1992, a new communications system was installed in the Freer-Sackler Gallery. The Smithsonian's electronic data communications network was extended to nearly 1,000 additional users and connected to the world-wide INTERNET service. OIRM in partnerships with the National Museum of Natural History and the National Museum of American History completed prototypes and technology tests, which were early phases of multi-year collections automation efforts for those bureaus. Demonstrations at professional meetings and to many government agencies of BioCIS multimedia products on biodiversity resulted in requests to share OIRM expertise and to cooperate in joint efforts with the U.S. Environmental Protection Agency and the National Oceanographic and Atmospheric Administration. The training program continued to be enhanced through information derived from a training survey.

The Ombudsman serves as a neutral party to whom employees can bring any work-related problem, concern, or complaint. In addition to the approximately 200 cases handled each year, the Ombudsman oversees the Smithsonian Emergency Assistance Fund, which provides loans to employees in emergency situations.

The Office of Planning and Budget (OPB) coordinates Institution-wide planning and budgeting. It produces the five-year plan, Choosing the Future, and conducts supporting analytical studies as appropriate. The Office formulates the Institution's Federal and nonappropriated Trust fund budgets for approval by the Secretary and the Board of Regents and prepares justifications for approved budgets for submission to the Office of Management

and Budget and to Congress, subsequently interacting with each on related matters. OPB also monitors established budgets to ensure that spending plans advance planning goals and comply with pertinent limitations. During FY 1993, OPB activities are emphasizing planning improvements, better management information, and training for the bureaus; and the Office continues to improve the personnel cost projection system.

The Office of Printing and Photographic Services (OPPS) has one of the broadest Smithsonian-wide customer bases of any service organization in the Institution. OPPS's responsibilities include taking photographs, processing photographic materials, and archival preservation of photographs. The Office has developed one of the finest environmental storage units in the world. By combining these advanced storage capabilities with new videodisc and digital technologies, this unit will pioneer many techniques for the preservation of photographic images while making them simultaneously and universally available.

The Office of Risk Management (ORM) assists and advises the Smithsonian in identifying and controlling risks. ORM is responsible for disaster preparedness planning, assessing the need for insurance, and handling liability claims against, and made by, the Smithsonian.

The Office of Sponsored Projects (OSP) is the primary point of administrative interface between the Smithsonian bureaus, offices, and research institutes and the public and private organizations from which grants and contracts are sought. OSP provides a range of administrative and financial services and resources. These services include pre-award review and approval, award acceptance, regulatory compliance, financial management, audit liaison, and indirect cost calculation.

The Treasurer is responsible for the safety and integrity of the financial assets of the Institution. Components of this overall responsibility include management of the endowment by transfer and investment of funds, investment of the Institution's short-term funds, and management of financing for Institution projects. In addition, the Treasurer provides assistance on real estate transactions, coordinates with the Comptroller to maintain appropriate controls over cash, and furnishes advice and recommendations on a range of financial issues to central management.

The Travel Services Office (TSO) makes travel arrangements in the most economical and effective manner consistent with Smithsonian and Federal travel regulations. The staff makes reservations and issues tickets for both airlines and trains as well as obtains reservations for hotels and car rentals. The director is responsible for monitoring changes to travel regulations and disseminating these changes as appropriate.

The Assistant Secretary for Institutional Initiatives has the principal responsibility for development activities at the Institution. The Office of Development and the National Campaign of the National Museum of the American Indian report directly to the Assistant

Secretary for Institutional Initiatives. In addition, the Assistant Secretary undertakes special studies on behalf of the Institution.

The Office of Development provides fund-raising services and support in the pursuit of private funds for Institution-wide priorities and selected bureau projects and programs. The Office also manages the Smithsonian Corporate Membership Program and is responsible for the Smithsonian Benefactor's Circle (a group of highest-level donors) as well as several volunteer organizations, including the Smithsonian National Board, the Women's Committee, and the Smithsonian Luncheon Group. By securing gifts, planned giving bequests, and pledges, the Office achieves its goal of assisting in the increase of restricted and unrestricted funds. In addition to fundraising, the Office manages the pan-Institutional constituency information and development system, records and maintains all gifts donated to the Institution, and attends to the stewardship of grants.

The Office of Inspector General (OIG) provides policy direction and conducts, supervises, and coordinates audits and investigations. The OIG promotes economy, efficiency, and effectiveness; and prevents and detects fraud, waste, and abuse in Institution programs and operations. The United States Congress empowered the OIG under the Inspector General Act. The OIG had an FY 1993 Federal base of 18 workyears and $1,186,000. During FY 1992, the OIG issued nine internal audit reports and ten contract audit reports and closed 62 complaints.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funding of these centralized management and administrative services from both appropriated and nonappropriated sources reflects a ratio of Federal and Trust fund support approximately in proportion to the operating program expenditures of the Institution as a whole. The amounts shown under unrestricted general Trust funds represent administrative expenditures for those units that are organizationally under Administration. Other units that receive Trust fund administrative allotments appear in the appropriate section of the budget. For example, administrative costs for the Smithsonian Astrophysical Observatory appear within its nonappropriated Trust funds section. The Office of Printing and Photographic Services generates sales income to help defray special purpose expenditures for producing, distributing, and marketing photographic material and slide sets. The Office of Equal Employment and Minority Affairs receives a program allotment that supports community outreach through exhibits and publications specifically aimed at women and minorities. Funds also provide for the identification and implementation of new financial and administrative management systems. Other anticipated expenditures in the special purpose category include support of studies in ornithology, computer conversion costs, a computer cost center, and small amounts used for legal seminars and research.

Trust fund allotments provide for public outreach activities of the Office of Public Affairs, including advertising and other initiatives in the African American, Latino, Native American, and Asian American media; radio advertisements; "Welcome" brochures for museum

visitors in several languages; monthly newspaper advertisements of general Smithsonian events; and the Smithsonian employee newsletter.

Restricted Funds - This category includes foundation grants for scientific research publications, general research projects, and expenditures against investment income earned on endowment bequests.

FACILITIES SERVICES

Office of Design and Construction

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	50	3,245	9	500	-	23	-	-	-	-
FY 1993 Estimate	50	3,477	3	353	-	-	-	-	-	-
FY 1994 Estimate	50	3,547	3	353	-	-	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of Design and Construction (ODC) administers projects for the repair and improvement of the Smithsonian's physical plant by providing architectural, engineering, and facility-planning services such as short- and long-range feasibility analyses, master plans, design and engineering studies, design development, contract document preparation, project management, contract administration, and preparation of cost estimates for construction. ODC staff reviews designs, plans interior design and space renovations, provides technical consulting support, and operates construction field offices. Not only does ODC design, build, and repair the Institution's buildings and facilities, it also provides technical support and expertise in the design and construction of exhibits such as, in recent years, "Seeds of Change" at the National Museum of Natural History, the Experimental Gallery in the Arts and Industries Building, the exhibit of First Ladies' gowns at the National Museum of American History, and the Gem Hall at the National Museum of Natural History, where the Hope diamond is displayed.

For FY 1994, the Smithsonian is seeking funding for the Office of Design and Construction to provide essential staff for the design and construction management for the Nation Museum of American Indian (NMAI) Washington facilities. This request is justified under the NMAI line-item. The Institution requires $70,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Office of Design and Construction plans, designs, constructs, and provides project and financial management for all new construction, renovation, restoration, and repair projects for Smithsonian Institution facilities. Projects are currently located in the

Washington, D.C., metropolitan area, Arizona, Florida, Maryland, New York, Massachusetts, and Panama.

Project Management - ODC provides project management and professional assistance to Smithsonian bureaus to guarantee a safe, proper environment for visitors, staff, and the National Collections. ODC also oversees projects and manages financial resources for the Institution's Repair and Restoration (R&R) program, which preserves, repairs, rehabilitates, and ensures code compliance for the Smithsonian's aging physical plant and for the Construction program for new facilities. In addition to repairs and construction, ODC provides professional assistance related to exhibit construction and other space modification projects. Primary services include orchestration of planning, design, and construction activities; financial management of all projects; and review of exhibit designs to ensure compatibility with existing building systems and compliance with safety, health, and accessibility requirements.

Facilities Planning - Facilities planners at ODC provide planning services for master plan studies and related analyses. They also develop funding and construction strategies for overall R&R and Construction programs. These services include defining preliminary facility requirements in detail, collecting data for future projects, and providing advice on construction priorities. Examples of FY 1994 projects include:

- planning for the National Museum of the American Indian facilities on the Mall and at Suitland, Maryland;
- renovation of the Cooper-Hewitt, National Museum of Design in New York City;
- continued work on an automated Smithsonian-wide facilities inventory;
- planning for the Suitland Collections Research Center.

Design and Construction - The design and construction staff of ODC administers architectural, engineering, and construction contracts; reviews exhibit installation projects; and supervises the execution of interior design and new construction projects. As the Smithsonian is one of the most frequently visited facilities in the world, its buildings and grounds require constant repair, ideally without closings, so that the public has maximum safe access and programs can continue with minimum disruption. In addition, the design and construction staff is responsible for executing the Smithsonian's extensive Repair and Restoration program, which preserves the Institution's historic architecture. Many Smithsonian structures are protected under the National Historic Registry Act as part of the national heritage.

Normally about 400 projects are in progress each year in ODC. Of these, 100 are construction contracts, and the rest are in a planning or design phase. In addition, approximately 100 exhibits are reviewed annually to ensure that they meet code and life safety requirements. Major projects planned for FY 1994 include:

- National Museum of the American Indian Custom House;
- implementation of a Smithsonian-wide accessibility program to bring the Institution into compliance with the Americans with Disabilities Act of 1990 (Public Law 101-330);
- National Museum of the American Indian, Suitland facility;
- roof repair and renovation of building systems at the National Museum of Natural History building;
- renovation of building systems at the Arts and Industries Building;
- renovation of building systems at the National Museum of American History building;
- construction of the East Court Building within the National Museum of Natural History building;
- repair of the facade and renovation at McAlpin Miller/Fox Houses at the Cooper-Hewitt, National Museum of Design in New York City;

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An annual allotment provides salary and partial support costs because ODC services both Trust and federally funded programs.

Office of Protection Services

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	734	26,871	-	24	1	461	-	-	-	-
FY 1993 Estimate	808	29,101	-	23	-	242	-	-	-	-
FY 1994 Estimate	808	29,638	-	23	-	245	-	-	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of Protection Services (OPS) protects the visitors, staff, collections, and facilities of the Smithsonian Institution by providing guards, physical security, and medical services.

For FY 1994, the Smithsonian is seeking funding for OPS security at the National Museum of the American Indian facilities in New York. This request is justified under the National Museum of the American Indian line-item. The Institution requires $537,000 for Necessary Pay for existing staff funded in this line-item.

PROGRAM - The Office of Protection Services's mission is twofold:

- ensure that the National Collections and other properties entrusted to the Institution are protected and secured, while permitting an appropriate level of public access to them;

- provide a proper level of occupational medical services to the staff and emergency medical services to staff and visitors.

The first aspect of OPS's mission entails assessing the protection requirements of Smithsonian facilities and addressing them through a guard force, an alarm network, and other security devices. The second aspect of the mission entails planning and providing occupational health services for employees, taking appropriate action to eliminate health hazards from the workplace, and supplying emergency medical treatment for the injuries and sudden illnesses of visitors and staff. To accomplish its two-part mission, OPS employs security officers,

management analysts, a staff of administrators, training specialists, alarm systems specialists, technicians, investigators, museum security specialists, a medical officer, nurses, and other professional medical staff.

The security force operates 24 hours a day, every day of the year. It patrols and provides access control at the major Smithsonian facilities in and near Washington, D.C., the Cooper-Hewitt Museum of Design and the National Museum of the American Indian in New York City, and the Smithsonian Tropical Research Institute in Panama. Uniformed security guards are stationed at entrances and patrol in and around Smithsonian galleries and buildings. Another priority effort is the protection of collection items in transit and the upgrading and modernization of the training program.

Since Smithsonian security guards have to respond to emergencies and signals of the alarm network that serves all Smithsonian facilities, as well as provide constant routine scrutiny of all public areas, it is essential for the Institution to maintain the adequate number of guard positions necessary to provide this level of protection. Over the past several years, this has become increasingly more difficult, especially as new facilities come on-line, or as new galleries are constructed or opened to the public.

An extensive network of locks, alarms, and other devices is necessary to control access to and protect Smithsonian facilities and properties. OPS advises curators and exhibitors on appropriate security systems, conducts security management surveys to determine the protection requirements of Smithsonian facilities, investigates alleged and actual violations of the law occurring on Smithsonian premises, and escorts many shipments of valuable objects to and from the Smithsonian.

Major budget priorities for OPS for the future will include the replacement of the current Smithsonian Institution Proprietary Security System, increased security for the protection of collection items in transit, and expanded training for OPS guards.

The investigative program is designed to resolve collection losses, thefts, and other serious internal matters. Successful resolution of collection losses and thefts requires coordination with the United States Attorney, the Department of Justice, and the court system.

OPS provides occupational medicine services and an employee assistance program. The medical officer, occupational health nurses, employee assistance counselors, and emergency medical technicians identify hazardous work environments, monitor the health of employees exposed to certain occupational hazards, and provide first aid for on-the-job injuries of employees. Major program elements include medical surveillance of employees exposed to various hazards; employee assistance counseling and referral for treatment related to substance abuse and emotional problems; training programs for management personnel in dealing with impaired employees; immunizations for employees on official travel orders; health education; major disease screening programs; and stringent monthly inspections of all Smithsonian food service facilities.

OPS staff is involved in a number of outreach activities both with other American museums and communities and with international organizations. For example, OPS conducts a national conference on the protection of cultural property every year, attracting participants from across the United States, Europe, and Canada. Staff members serve on several national and international security committees. On a regular basis, OPS provides advice to museums, libraries, churches, historic sites, and corporations throughout the United States on security systems for facility, exhibit, and collection protection.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds, provided by an allotment and reimbursements for the use of guard services at special events and lectures at Smithsonian facilities, are used to support the administrative costs of the Office.

Office of Plant Services

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Actual	454	45,293	5	1,027	[illegible]	362	-	3	-	-
FY 1993 Estimate	492	46,026	2	823	8	640	-	7	-	-
FY 1994 Estimate	492	47,903	2	823	8	651	-	7	-	-

FTE = Full-time equivalent
FTP = Full-time permanent

ABSTRACT - The Office of Plant Services (OPlantS) operates, maintains, and repairs 14 museum and art gallery buildings and many other work and collection storage areas located in the Washington metropolitan area and New York City. In support of research, exhibitions, education, and other public programs, OPlantS provides utilities, transportation, mail services, exhibits renovation, and other program services. OPlantS also provides technical assistance to several Smithsonian units located outside the Washington metropolitan area, including the Smithsonian Tropical Research Institute in Panama, the Fred L. Whipple Observatory in Arizona, and the Smithsonian Environmental Research Center in Edgewater, Maryland.

The South Group Facilities Management and Quadrangle Facility Management are also part of this line-item. South Group Facilities Management offers a range of maintenance services for the Arts and Industries Building and Smithsonian Institution Building. Quadrangle Facility Management offers similar services for the Arthur M. Sackler Gallery, the National Museum of African Art, and the S. Dillon Ripley Center, all located in the Quadrangle Complex.

For FY 1994, the Smithsonian is seeking funding for OPlantS for facilities maintenance of the National Museum of the American Indian facilities in New York. This request is justified under the National Museum of the American Indian line-item. The Institution requires $497,000 for Necessary pay of existing staff funded in this line-item. An increase of $1,380,000 justified in the Mandatory Costs Increases section of this budget will support the Institution's central utilities and rent.

PROGRAM:

I. Office of Plant Services - The Office of Plant Services operates, maintains, and repairs more than 5 million square feet of space. The Office maintains building interiors and exteriors, elevators, escalators, and mechanical and electrical equipment. Additionally, OPlantS maintains lighting and refrigeration components and oversees emergency property repairs. The Office provides trade and craft support for the Institution, including plumbing, electrical, woodcrafting, painting, and plastering efforts. In addition to supporting Smithsonian research projects and office relocations and modifications, OPlantS supports exhibition installations and public events in all Smithsonian facilities.

OPlantS's automated Facility Monitoring System continually analyzes and controls mechanical equipment throughout the Institution. This system monitors building areas that require stable humidity and temperature control and alerts a control center when deviations from normal conditions occur. Since this automated system identifies abnormalities so quickly, immediate adjustments by OPlantS's staff avoid costly repairs and prevent damage to the National Collections.

OPlantS's automated Preventive Maintenance System schedules regular preventive maintenance on building operating systems, ensuring increased reliability, reduced repair costs, and longer life. This system schedules preventive measures for fire detection/prevention systems, and automatic lighting as well as for roofing systems and heating, ventilating, and air conditioning systems in all museums and the Smithsonian Environmental Research Center.

The Office operates a supply warehouse to stock and distribute frequently used building maintenance and custodial supplies and materials. To obtain the best prices, OPlantS purchases these materials in bulk. In addition to supporting office relocations and modifications, OPlantS offers packing, crating, warehousing, and moving services for museum objects and collections. The Office also provides a full range of transportation services for the Institution as well as mail services and postage monitoring.

The Horticultural Services Division in the Office of Plant Services maintains the Smithsonian grounds and applies the discipline of horticulture in educational, scientific, research, exhibition, and display activities throughout the Smithsonian. Garden furnishings from the collections and plants propagated and grown at the Smithsonian greenhouse-nursery are used in landscape design and interior and exterior displays. Exterior pest control, removal of trash from the gardens, and snow and ice removal are also the responsibility of this Division.

In FY 1992, OPlantS provided trade and craft support to Smithsonian museums and organizations, including preparation of space for new exhibitions. Notable among these exhibitions were "Degenerate Art" at the International Gallery; "Cross Currents" and "Martin Puryear" at the Hirshhorn Museum and Sculpture Garden; "Seeds of Change" at the National Museum of Natural History; "Star Trek" and "Where Next, Columbus?" at the National Air and Space Museum; "Hampton Throne" and "Chicano Art" at the National Museum of American

Art; "Albert Paley" at the Renwick Gallery; and "To Achieve These Rights" at the Anacostia Museum. OPlantS craftspersons renovated office space to accommodate changing needs in various locations; completed energy conservation projects at the American Art and Portrait Gallery Building, Smithsonian Institution Building, and the Hirshhorn Museum and Sculpture Garden; and continued installing automated exhibit lighting systems. The Facilities Inspection Program identified and estimated additional facility repair needs to be performed by OPlantS and/or contract personnel under the Repair and Restoration of Buildings program. Unfunded requirements identified by the inspection program form the basis of the annually compiled backlog of essential maintenance and repair.

In 1992, the Potomac Electric Power Company commended the Office of Plant Services for continued participation in the electrical Load Curtailment Program, the New Building Design Program, and the Commercial Lighting Program.

Establishment of a Chargeback System for Exhibition and Program Support: A major component of the Institution's FY 1993 restructuring plan is the establishment of a chargeback system for central Institution-wide services for exhibitions and program support from OPlantS. The plan will provide for the chargeback system by permanently reprogramming funding ($1.1 million currently included in the OPlantS base) to individual bureaus and offices which use the services of OPlantS. The goals is to reduce the overall costs of supporting exhibit construction and other minor facilities services costs by requiring clients to better plan and more efficiently allocate from their own budgets their use of OPlantS's services through the chargeback system. This reprogramming from OPlantS to other bureaus and offices will be based on an analysis of the usage of these services over the past three years.

II. South Group Facilities Management - South Group Facilities Management is responsible for cleaning, minor maintenance, labor services, lamping, craft services, shipping and receiving, and special events for the Arts and Industries and Smithsonian Institution buildings. This office also contracts and coordinates maintenance, trash removal, pest control, and renovation projects for these buildings.

III. Quadrangle Facility Management - Quadrangle Facility Management provides a wide variety of support services to the Education Center of the S. Dillon Ripley Center, National Museum of African Art, Arthur M. Sackler Gallery, Smithsonian Associate Programs (formerly Resident Associate Program and National Associate Program), Smithsonian Institution Traveling Exhibition Service, and International Center. These services include space scheduling, custodial and labor services, rigging, minor maintenance, lamping, shipping and receiving, and related services. The automated scheduling and maintenance program enhances the reliability and effectiveness of housekeeping, public events, and related support services.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds:

I. Office of Plant Services - Allotments provide unrestricted Trust funds to cover salaries and support costs in OPlantS. These allotments also provide the Trust share of space rental costs for administrative activities located at L'Enfant Plaza. Reimbursements from Trust-funded client organizations provide Special Purpose Funds for support services offered by OPlantS. These funds purchase supplies, services, equipment, and landscaping materials.

II. South Group Facilities Management - Reimbursements for special events are the primary source of Trust funds. The amount varies depending upon the nature of the events and the requirement for overtime. This money has been used to purchase equipment for special events, computer hardware and software, and supplies.

III. Quadrangle Facility Management - Trust funds are generated through reimbursements from special events. The amount varies each year depending on the nature of the events and the overtime required. The funds assist in purchasing supplies, services, and equipment for special events.

National Zoological Park
Construction and Improvements

1992 Appropriation	$7,899,000
1993 Appropriation	$7,832,850
1994 Estimate	$5,400,000

Appropriations to this account provide funding for:

- repairs, alterations, and improvements to plant property;
- additions to existing facilities and minor new facilities, including exhibits;
- plans and specifications for construction;
- renovation, restoration, and construction of new facilities outlined in the Master Plan.

The Zoo contracts for most construction and improvement projects. If the contractor's estimates are above acceptable cost levels, it is more economical to hire permanent or temporary laborers to accomplish the work. The account also funds related expenses such as relocation of animals during the renovation or construction of facilities and major grounds maintenance resulting from storm damage.

In keeping with the 1889 charter, the National Zoological Park endeavors to "administer and improve" the Zoo for "the advancement of science and instruction and recreation of the people" (20 U.S.C. 81). The National Zoological Park (NZP) complex includes 163 acres in the Rock Creek Valley of Washington, D.C., and a 3,150-acre Conservation and Research Center (CRC) located near Front Royal, Virginia. Since 1890, exhibition and public education functions have been centered in the Rock Creek Valley portion of the National Zoological Park. Conservation, training, research, and breeding are conducted at both Rock Creek and the Conservation and Research Center. Since 1975, CRC has assumed primary responsibility for Zoo programs to save threatened and endangered animal species.

The composition of the FY 1994 request is as follows:

Rock Creek Master Plan:	
Aquatic Trail - Living in Water	$800,000
Grasslands Exhibit (Phase II)	1,000,000
Renovation, Repair, and Improvements:	
Rock Creek	2,400,000
Conservation and Research Center	1,200,000
TOTAL REQUEST	$5,400,000

ROCK CREEK MASTER PLAN - The National Zoo's Rock Creek facilities have been undergoing major renovation and improvements through implementation of the Master Plan. Congress has appropriated a total of $69,084,900 from FY 1974 to FY 1993 to carry out major portions of the Master Plan. Full implementation of the Master Plan, as revised in 1986, will place the National Zoological Park among the world's finest zoos.

Aquatic Trail - Living in Water ($800,000) - Funds received in FY 1993 ($2,068,950) will allow for design and the beginning of construction of a cluster of new habitat exhibits as part of the Aquatic Trail. Funding of $800,000 for FY 1994 will allow the Zoo to complete a scaled down Aquatic Trail - Living in Water phase of the Zoo's Aquatic Habitats. The remaining exhibit clusters will be constructed with funding requested in the following two years.

The Living in Water exhibit, the focal point for the complex, will emphasize the relationship of water to living things of the aquatic world on this planet which has two-thirds of its surface covered by oceans. It will illustrate physical and chemical properties of water and focus on the development of biological groups living in water, presenting their adaptation and their extraordinary evolutionary radiation. Employing a full spectrum of media, the exhibit will emphasize specialization in reproduction, social signaling, respiration, and prey capture. It will serve as a prelude to the mixed species communities that will follow in the additional exhibit clusters.

With funding provided in this request, the Zoo will complete construction on the Living in Water exhibit in late 1995. Final construction on the total Aquatic Habitats facility is scheduled for late 1997.

Grasslands Exhibit, Phase II ($1,000,000) - With funds received in FY 1993 ($1,280,950), the Zoo will complete design and initial site preparation for the Grasslands Exhibit. Once completed the complex will include three new exhibits, each representing a distinct ecological and geographic area: African Grasslands, American Grasslands, and Forests. Actual construction on the African Grasslands Exhibit will begin with funding requested in FY 1994.

The African Grasslands Exhibit will be adjacent to the Education Building and can be approached from either direction along the Zoo's Olmsted Walk. The exhibit will be subdivided into two major habitats, the African Savannah Grassland and the African Desert Grassland. In each of the two subdivisions, pedestrian loop trails will lead the visitor off Olmsted Walk and into the habitats. Screening and specimen plantings will create the illusion of being in Africa. Animal species such as cheetah, zebra, ostrich, wildebeest, flamingo, spotted hyena, blesbok, gerenuk, and dwarf mongoose will inhabit the grassland. The exhibit will include a nocturnal segment that will include animals such as the zorilla, aardvark, fenne fox, cobra, and insects.

The funding requested in FY 1994 will allow the Zoo to construct the African Grasslands Exhibit. It is the first of three habitats that will constitute the Grasslands and Forest Exhibit complex, a series of exhibits that will represent distinct ecological and geographic

areas. In the exhibits, the Zoo will stress the BioPark theme by highlighting the manner in which animals and plants adapt to their specific environment and to each other. The remaining two exhibits, the American Grasslands and the Forest habitats, will be constructed with funds anticipated in FY 1995 and FY 1996.

CONSERVATION AND RESEARCH CENTER DEVELOPMENT PLAN - At the Conservation and Research Center, the Zoo has established a plan that will meet the Center's conservation, research and public education needs well into the next century. This Development Plan results from an extensive analysis of the CRC's operations and its facilities, both as they exist today and as required in the future. The Plan focuses on more efficient use of existing space and facilities, and future program needs. An important aspect of the Plan is a built-in flexibility for growth that accommodates expansion of research and conservation programs at minimal costs. Continued funding will be requested in subsequent years.

RENOVATION, REPAIR, AND IMPROVEMENTS:

Rock Creek ($2,400,000) - The National Zoological Park is responsible for the repair and preventive maintenance of its facilities. The Zoo strives to maintain a safe environment for its visiting public and staff, provide ecologically suitable and comfortable enclosures for the animals, and maintain all buildings in good condition. The FY 1994 funding will help ensure that the Zoo's preventive maintenance program will not include a large backlog of major repair projects.

The Zoo's Rock Creek facilities, located on 163 acres, include almost 500,000 square feet of buildings and more than 160,000 square feet of roofs. Along with the Park's perimeter fence, measuring 10,564 linear feet, the Zoo's in-ground utility distribution system includes more than 4,600 linear feet of high-voltage electrical lines, approximately 4,000 linear feet of medium-voltage electrical lines, 16,000 linear feet of water mains, 6,000 linear feet of gas mains, 28,000 linear feet of sewer lines, and 14,000 linear feet of storm drains. The Park's preventive maintenance program includes the care of these systems to ensure safe operation of the total facility.

The major repair and renovation projects planned for the Rock Creek facility in FY 1994 include:

- removing asbestos (ongoing program);
- reroofing one major Zoo building;
- bringing fire protection and prevention systems up to code requirements;
- renovating the auditorium in the Education Building;
- renovating the interior of two exhibit buildings;
- continuing preventive maintenance of heating, ventilating, and air conditioning (HVAC) systems (ongoing program);
- renovating and replacing interpretive signage (ongoing program); and
- repaving some interior Zoo roadways.

The Zoo requests $2,400,000 to continue its annual program of renovation, repair, and preventive maintenance for its Rock Creek facility. This level of funding for FY 1994 will enable the Zoo to provide the required level of general maintenance to all the plant property.

Conservation and Research Center ($1,200,000) - The Zoo's Conservation and Research Center at Front Royal is a nonpublic facility devoted to the conservation of endangered wildlife through programs in propagation, research, and international training. The 3,150-acre facility includes more than 89 structures ranging from animal shelters to research laboratories and residences. The property has more than 2 1/2 miles of roads, 20 miles of jeep trails, and 30 miles of fences.

Funding requested in FY 1994 will enable the Center to continue the required maintenance and upkeep of these diverse facilities. The major projects scheduled for FY 1994 include:

- repairing and replacing roofs on three buildings and one animal barn;
- renovating the exteriors of three residences, the Administration Building, and buildings 4, 8, and 9;
- converting a large shed into a storage facility for large equipment;
- renovating an unused barn for ungulate pre- and postshipment quarantine;
- constructing an ungulate barn in Meade Pasture to provide winter shelter;
- replacing and installing overhead wire on Hardy Bird Yard breeding complex; and
- renovating the maned wolf breeding and rearing enclosure.

The $1,200,000 in this request will support the Center's preventive maintenance program and help reduce costly repairs at this important facility in the future.

Repair and Restoration of Buildings

1992 Appropriation	$23,599,000
1993 Appropriation	$24,192,600
1994 Estimate	$24,000,000

Smithsonian facilities include 15 museums and gallery buildings in Washington, D.C., and New York City and total more than 5.5 million square feet of building space. These museum buildings house research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. The Institution also operates and maintains restoration, storage, and aircraft and spacecraft display facilities in Suitland, Maryland, and New York City; centers for biological research, conservation, and education in Panama and on the Chesapeake Bay near Edgewater, Maryland; a center for astrophysics in Cambridge, Massachusetts; and the Whipple Observatory on Mt. Hopkins in Arizona. These facilities range in age from new to more than 140 years old, and many are on registers of historic landmarks.

The Repair and Restoration of Buildings (R&R) account pays the cost of repairs, corrective measures to meet life safety and health regulations, and replacement or renovation of major building components or equipment. The repairs and renovations at the National Zoological Park are covered under the Construction and Improvements, National Zoological Park, appropriation account.

The heavy public use of buildings and the demand for constant temperature and humidity levels to protect the National Collections accelerate the natural aging process of building materials, equipment, and systems. The Smithsonian now achieves longer-than-average predicted life for most equipment. It is a measure of the effectiveness of the Smithsonian's preventive maintenance program that this longevity is accomplished in the face of a 24-hour operation that places the equipment under a more severe duty cycle than normal. Eventually, however, even effective preventive maintenance and regular repair programs are not sufficient to keep the equipment components of building systems operating. The Institution must overhaul heating, ventilating, and air conditioning (HVAC) systems and electrical and plumbing systems periodically to replace deteriorated equipment, wires, ducts, and pipes. It must repair the effects of weather on the exteriors of buildings and guard against interior damage. In addition, the enactment of new codes and regulations calls for building modifications to ensure a safe and healthful environment and access for visitors and staff with disabilities.

Funding levels for maintenance, repair, and preservation of buildings are not keeping pace with the rate of deterioration. A substantial backlog of unfunded but currently needed

essential repair work exists and continues to grow. These repairs are vital to ensure the continued reliable functioning of building equipment and systems, long-term preservation of buildings, and compliance with life safety and health codes and standards. The most recent (January 1993) estimate of the backlog of currently unfunded projects is $226 million. This figure represents an increase from the January 1992 level ($221 million) for which Congress appropriated $24.2 million in FY 1993. The funding request for FY 1994 will apply only an additional $24 million against this backlog of repairs.

Despite annual increments of funding, many factors contribute to the continual growth of the problem. The backlog is not a static list of repair projects. Every year problems that did not previously exist must be added. Newly promulgated life safety and health codes and heightened sensitivity to environmental hazards require work not formerly required. Other factors contribute to increased cost estimates for repairs already included in the backlog, such has additional deterioration or damage. More detailed studies of previously identified problems and the inflationary effect of project delays also contribute to higher cost estimates for the work. In addition to the backlog of repairs currently needed, the Institution is aware of a substantial volume of work that will be required in the near future to keep its buildings operating. Only a sustained commitment to increased funding over the current level will allow the Institution to reduce the backlog in an orderly manner to ensure preservation of its buildings for continued use by future generations.

The Smithsonian separates projects under the R&R program into two categories and accordingly requests funding in two subaccounts. The first subaccount, Major Capital Renewal, includes funds for the cyclical replacement of major building systems and equipment and major renovation projects required to ensure long-term preservation of the buildings. These projects differ in magnitude, expense, and planning complexity from routine, ongoing restoration work, repair projects, or replacements undertaken when a piece of equipment fails. More than half the identified backlog consists of these major replacement requirements for HVAC and electrical systems at the American Art and Portrait Gallery, American History, Natural History, Renwick Gallery, and Smithsonian Institution buildings. In addition, major capital renewal will be needed at the Air and Space and Arts and Industries buildings in the near future.

The second R&R subaccount is Repairs, Restoration, and Code Compliance. Funding requested through this subaccount will reduce, over a period of time, the backlog of repairs and other work needed to meet safety and health requirements. This subaccount encompasses six categories of routine maintenance and repair projects. This budget request presents an aggregate amount for each of the six categories, with a description of the kinds of work planned.

The composition of the FY 1994 R&R budget request follows:

MAJOR CAPITAL RENEWAL		$1,350,000
REPAIRS, RESTORATION, AND CODE COMPLIANCE		
General Repairs	$5,785,000	
Facade, Roof, and Terrace Repairs	2,985,000	
Fire Detection and Suppression Projects	1,140,000	
Access, Safety, and Security Projects	6,880,000	
Utility Systems Repairs	4,225,000	
Advanced Planning and Inspection	1,635,000	
Subtotal		$22,650,000
TOTAL REQUEST		$24,000,000

MAJOR CAPITAL RENEWAL - Projects in this category involve replacing major building systems and components. Complete replacement ensures long-term operation and preservation of the building. Modifications to the building also improve energy efficiency, meet fire detection and suppression requirements, and correct hazardous conditions. By coordinating these, the Institution saves money and avoids repeated disruption to activities in the building. The Smithsonian achieves operating efficiencies as well by designing new building systems and components to work together. For example, by installing multiple-paned windows and increasing insulation, the Smithsonian can select heating and cooling equipment with lower capacity. The equipment costs less to purchase and install, and long-term operating costs are lower. The impact of renovation work on programmatic activities is a key factor in planning a major project. Work of this magnitude causes serious disruption to activities in the building. The Institution must relocate staff and collections from the areas under construction to prevent damage, allow staff to continue working during the construction period, and ensure continued public access and safety.

For FY 1994, the Smithsonian requests $1,350,000 for the projects described below. Although funding is not requested in FY 1994 for Major Capital Renewal projects at the Museums of American History and Natural History, work in these buildings will continue on schedule using funds previously provided.

Air and Space Building ($150,000) - Construction of the Air and Space Building was started in 1974, and it opened to the public in the summer of 1976. Almost from the beginning, the National Air and Space Museum has experienced a variety of environmental problems. With funding received in FY 1993 ($150,000), the Institution will complete a physical survey of all major building components, analyze the interactions of present and future physical plant modifications, and evaluate the impact of proposed programmatic changes on the overall operation of the building. The staff will then develop a phased implementation plan for physical plant renovation to provide an appropriate environment for museum operations in an energy-efficient manner. The work will include replacing outdated HVAC components, increasing ventilation to comply with new code requirements, improving temperature and

humidity controls, and lowering dust and dirt contamination. The Smithsonian requests $150,000 in FY 1994 to begin design of the plan.

Arts and Industries Building ($1,000,000) - The Arts and Industries Building is one of the finest examples of Victorian architecture in the Nation. Originally designed to house representative artifacts from the Philadelphia Centennial Exposition, the building was started in April 1879 and completed in March 1881. The last major renovation of the HVAC system took place in the 1960s, with some additional work done in the mid-1970s to prepare for the opening of the "1876 Centennial Exhibition." The HVAC equipment and electrical and other utility systems must be replaced. Most spaces are heated and cooled by antiquated mechanical systems. Pressurized steam pipes, chilled water pipes, and electrical conduits are located in utility trenches under the first floor. These trenches contain asbestos and are filled with abandoned pipes and conduits, which make access for inspection, maintenance, and repair disruptive, difficult, and costly. In addition, the building envelope has substantial deficiencies, and its HVAC system cannot maintain optimum environmental conditions required for museum collections. With the recent decision to use the building to house the proposed African American Museum, this problem becomes critically important to correct.

Over the past several years, the Smithsonian has performed a series of studies concerning physical plant improvements and utility tunnel replacement for the building. The staff has contracted with an architectural and engineering firm to evaluate these studies and develop recommendations for the sequencing of work. On the basis of these recommendations, the Institution will use funds received in FY 1993 ($200,000) to begin design of the first phase of work. The amount of $1,000,000 is requested in FY 1994 to begin implementation of this initial phase of construction. The phased replacement of all mechanical, electrical, plumbing, fire protection, and vertical transportation and communications systems in the building will extend its useful life and improve its operating efficiency.

Smithsonian Institution Building ($200,000) - The Institution's first building is now more than 140 years old. The last renovation of the major building systems took place in the 1960s. The mechanical (HVAC) and electrical systems are near the end of their projected lifespans. In addition, the new Smithsonian Information Center and the proliferation of computers and other office equipment have greatly changed the heating and cooling loads of the building. New, modern equipment, sized to meet the needs of current and projected activities, will provide more effective climate control and ensure continued operation and long-term preservation of the building. Energy efficient equipment will provide future savings in operating and maintenance costs. During renovation, the Institution will install sprinklers in the Great Hall, a project previously deferred because of the major disruption it would have caused to the Woodrow Wilson Center immediately above.

With funds provided in FY 1991, the Institution recently completed an energy audit that identified utility system replacement requirements, energy conservation opportunities, and associated architectural modifications. The Smithsonian will use $200,000 appropriated in FY 1993 to begin design and seeks an additional $200,000 in FY 1994 to continue design.

Actual construction will be coordinated with the relocation of the Woodrow Wilson Center to new quarters in another building in 1995 or 1996.

REPAIRS, RESTORATION, AND CODE COMPLIANCE - Projects in this category include:

- minor, unscheduled, but essential repairs to sidewalks, roads, parking lots, waterproofing, electrical and lighting systems, and plaster walls;

- repairs to facades, roofs, skylights, terraces, and windows;

- installation of heat and smoke detection systems, sprinkler and chemical suppression systems, fire doors and fire-rated walls, and lightning protection and improvement of exit capability;

- improvements to ensure access for people with disabilities, asbestos abatement, renovations to elevators, correction of exhaust or ventilation problems, implementation of life safety and health code modifications, and security modifications and lighting;

- repairs and energy conservation improvements to HVAC, plumbing, electrical, and communications systems and improvements to rest room facilities;

- advanced design of future-year projects and long-range planning for repair and restoration of Smithsonian facilities and feasibility studies of specific problem areas.

For FY 1994, the Smithsonian requests $22,650,000 for the projects listed below:

General Repairs ($5,785,000) - Funds requested in this category support a wide variety of projects. These funds provide resources for minor, unscheduled, but essential repairs that the Institution cannot anticipate specifically or that do not fit into one discrete category. For FY 1994, the Institution requests $5,785,000 for such projects as:

- repairing sidewalks, parking lots, and roads at various locations;

- repairing walls and restoring interior finishes in several locations, including the attic of the Freer Gallery Building, the McAlpin-Miller and Fox Houses at the Cooper-Hewitt Museum, and the basement corridor of the Smithsonian Institution Building;

- repairing tornado damage to building 26 at the Silver Hill Facility;

- installing permanent weather enclosures around the stairwells on the garage level of the Air and Space Building;

- repairing deteriorated structural components on the Naos pier, interior and exterior repairs to Building 235 in Ancon, and painting of structures at several locations at the Smithsonian Tropical Research Institute;

- making general repairs to off-Mall facilities;

- handling emergency repairs required throughout the Smithsonian.

In addition, the requested funds will allow improvements to Smithsonian properties to provide consistent public amenities and visual cohesion among buildings on the Mall, such as pedestrian and vehicular movement, signage, disabled access, and rest areas.

Facade, Roof, and Terrace Repairs ($2,985,000) - Maintaining the integrity of the exteriors of all Smithsonian buildings is critical. This maintenance will prevent major structural and interior damage and deterioration due to age, water intrusion, and weathering. Proper care will ensure a safe environment for visitors, staff, and collections. In addition, energy conservation and environmental control demand weather-tight exteriors. Work in this category includes a variety of projects accomplished cyclically according to the life of the materials used. For example, roofs need replacing nearly every 20 years; facade joints need recaulking and repointing about every ten years; and window frames and other exterior trim need repainting every five years. Several Smithsonian buildings now require large-scale restoration. The Institution plans to offer additional protection for building exteriors through an enhanced preventive maintenance and repair program.

For FY 1994, the Institution requests $2,985,000 for facade, roof, and terrace repairs. Planned projects include:

- repairing or replacing windows, exterior doors, and skylights at the Cooper-Hewitt Museum, and the Air and Space Museum;

- repairing or recaulking stonework at the Smithsonian Institution Building, the Air and Space Building, and the McAlpin-Miller and Fox Houses at the Cooper-Hewitt Museum;

- repairing or replacing roofs at the McAlpin-Miller House at the Cooper-Hewitt Museum, and the Paul E. Garber Facility;

- repairing and rewaterproofing the fountain at the Hirshhorn Building;

- repairing and painting wooden and metal facades and building elements at a variety of locations.

Fire Detection and Suppression Projects ($1,140,000) - A major Institutional priority is to use state-of-the-art technology for the best fire protection and safety measures available under today's standards. Every major Smithsonian facility has a fire protection master plan. The Institution has now completed much of the required work, and additional modifications will be incorporated into the Major Capital Renewal projects in several buildings. For FY 1994, the request of $1,140,000 will continue fire protection master plan work in the McAlpin-Miller House of the Cooper-Hewitt Museum, the American Art and Portrait Gallery Building, and the Hirshhorn Building. The Institution will also make fire protection improvements at the Smithsonian Environmental Research Center, and the Smithsonian Tropical Research Institute. Work will include the installation of heat and smoke detection systems, sprinkler and chemical suppression systems, fire doors and walls, and the improvement of exit capability.

Access, Safety, and Security Projects ($6,880,000) - The Institution continues to emphasize providing better access to its facilities for persons with disabilities, improving environmental conditions for the health and safety of visitors and staff, and correcting facility conditions that threaten the security of the National Collections.

For FY 1994, the Institution requests $6,880,000 for a number of important projects in these areas. Among plans to correct unsafe or hazardous conditions in its buildings are the continuation of several projects, including the asbestos abatement program throughout the Institution, repair of the exterior emergency doors at the American History Building to provide safe egress routes in the event of evacuation, and modifications to the McAlpin-Miller and Fox Houses of the Cooper-Hewitt Museum to improve access and egress capability to meet life safety codes. Other projects planned for correction of hazardous conditions are:

- installing containment and waste water treatment facilities for chemical cleaning of large artifacts and relocating decontaminated artifacts and removing asbestos insulation from Building 17 at the Paul E. Garber Facility;

- modifying the ventilation equipment serving laboratories in the Museum Support Center and the paint spray booth and carpenter shops at the Sackler Gallery in the Quadrangle Complex to eliminate air quality problems.

The Smithsonian will continue a multi-year project to correct a number of deficiencies that impede accessibility to public spaces and amenities by persons with disabilities. The work will include improving entry by wheelchair, eliminating obstructions and overhead hazards, correcting elevator deficiencies, changing placement of drinking fountains, modifying rest rooms, improving emergency warning systems, and providing seating space for wheelchair users and listening systems for the hearing impaired. In addition, the Institution will renovate the South Tower elevator at the Smithsonian Institution Building to ensure it meets applicable life safety and accessibility codes.

Projects for FY 1994 to improve security of the collections, staff, and visitors include:

- continuing the project to improve illumination around buildings and in parking lots for more effective surveillance on the Mall and at the American Art and Portrait Gallery Building;

- installing new security doors, card access, and surveillance equipment between public and nonpublic areas on the ground floor and in the wings of the Natural History Building;

- providing two radio towers with repeaters to improve security communication capability within the Barro Colorado Nature Monument at the Smithsonian Tropical Research Institute.

Utility Systems Repairs ($4,225,000) - Funds in this category will maintain, repair, and upgrade the heating, ventilating, and air conditioning systems and plumbing, electrical, and communications systems throughout the Institution's facilities. Ongoing renovations, repairs, and replacement of deteriorated equipment components are essential for ensuring reliable and energy-efficient operation of utility systems. The long-term preservation of the National Collections and the Institution's historic structures depends on stable temperature and humidity conditions.

Energy management remains a high priority at the Smithsonian. Opportunities to conserve energy by adjusting equipment and modifying operations have already been implemented. The most significant energy savings opportunities that remain will result from upgrading HVAC systems, replacing obsolete equipment, and extending central automated controls for existing systems. The Institution modifies existing HVAC systems to accommodate programmatic growth, changes in the use of buildings, and the environmental needs of collections as they become better understood. The Institution uses an integrated approach to renovations and modifications to plan for long-range, systematic HVAC improvements that will meet museum environmental requirements in an energy-efficient manner.

Comprehensive HVAC studies and energy audits for most of the buildings facilitate planning of other improvements. The data gathered by these studies provide a basis for determining redesign or replacement needs of existing HVAC systems; developing construction cost estimates; identifying favorable payback opportunities; and establishing priorities for the repair, replacement, or modification of equipment components. At the same time, energy audits investigate all factors relating to energy use, such as power-consuming equipment and building conditions (doors, windows, insulation, floors, and partitions). After identification of energy conservation opportunities and evaluation of costs and potential energy savings, plans will guide the renovation and improvement work. This process identified a number of major system replacements that the Major Capital Renewal subaccount will fund in addition to minor repairs and renovations requested in the Utility Systems Repairs category.

Funding of $4,225,000 requested in FY 1994 in this category will support routine repair, replacement, and modification projects. These projects include:

- repairing electrical systems at the Research Branch of the Museum of the American Indian, the American History Building, and the Museum Support Center;

- repairing plumbing systems at the McAlpin-Miller and Fox Houses of the Cooper-Hewitt Museum, and American History Building;

- modifying the interior lighting system at the Hirshhorn Building to improve energy efficiency;

- repairing or replacing mechanical (HVAC) equipment at the Carnegie Mansion of the Cooper-Hewitt Museum;

- replacing the cooling tower at the Museum Support Center;

- continuing installation of a communications raceway system serving the staff offices in the Smithsonian Institution and Natural History Buildings.

Advanced Planning and Inspection ($1,635,000) - Funds in this category support projects to identify and analyze long-range repair and restoration needs and to design future-year projects in advance of funding requests. The amount of $1,635,000 requested in FY 1994 will allow the Smithsonian to contract for planning and design of projects in the backlog of essential maintenance and repair.

The funding requested in this category reflects the Institution's commitment to reduce the backlog more quickly by improving planning and cost estimating in the R&R program. The ability to identify, in advance of funding requests, the precise requirements and costs of individual projects is key to the success of this effort. Thorough planning and development of design concepts will provide detailed estimates and identify logistical considerations that will allow staff to plan repair strategies and establish immediate and long-range budget requirements. In addition to improving the accuracy of cost estimates, design of projects in advance of funding will save the Institution in escalation costs by enabling the staff to award construction contracts as soon as resources are appropriated. Needed repairs will also be accomplished much sooner, thus preventing further deterioration and ensuring faster compliance with codes.

The funding level requested for FY 1994 will allow Smithsonian staff to complete planning and design in advance of appropriations for a greater portion of the projects to be included in the FY 1995 R&R program and will permit preliminary design of some of the projects expected to be in the FY 1996 program as well. The Institution will gradually increase the amounts requested in future fiscal years for advanced planning and design to allow

preliminary design of the majority of projects in the R&R program prior to budget request. Greater advanced planning and design capability will improve significantly the overall cost effectiveness of the R&R program and will speed reduction of the backlog of essential maintenance and repair work.

Construction

1992 Appropriation.....$19,156,000
1993 Appropriation.....$16,686,945
1994 Estimate.....$10,400,000

The FY 1994 appropriation request for Construction represents an investment in the Institution's long-range program goals. The Institution has growing requirements for physical plant expansion and modification to support existing and future programs. The Smithsonian staff has assembled these requirements into a comprehensive long-range capital improvement program that will be phased over the next decade. The FY 1994 Construction request addresses some of the most urgent components of this program. Funding of these projects is essential to maintain vitality in the Institution's far-reaching programs of research, collections management, public exhibitions and education, and other services.

This year's Construction request is as follows (projects are not listed in priority order):

MAJOR CONSTRUCTION	
National Museum of the American Indian:	
Cultural Resources Center	$6,200,000
GENERAL CONSTRUCTION PLANNING	200,000
MINOR CONSTRUCTION, ALTERATIONS, AND MODIFICATIONS	4,000,000
TOTAL	$10,400,000

MAJOR CONSTRUCTION ($6,200,000)

National Museum of the American Indian - On November 28, 1989, President George Bush approved Public Law 101-185 establishing the National Museum of the American Indian. The basis of the new museum is the Heye Foundation Collection, which includes more than one million Native American objects and artifacts from all parts of the western hemisphere. The New York State Supreme Court approved the transfer of the Foundation's collection to the care and custody of the Smithsonian, effective June 24, 1990. The agreement between the Smithsonian Institution and the Museum of the American Indian, Heye Foundation, signed in May 1989, also provides for transfer of the Foundation's endowment and most of its other property, including a 100,000-item archives.

The creation of this new national Museum is the culmination of almost a decade of negotiations among the Foundation, the City and the State of New York, and, more recently, the Smithsonian Institution. When the new Museum opens to the public at the turn of the century, it will stand as a tribute to the many and varied contributions of American Indians, Eskimos, Aleuts, native Hawaiians, and other Native American cultures. In Congressional testimony describing the prospective of the Museum, Secretary Robert McC. Adams said, "It is likely to alter beyond all expectation public understanding of American Indian people."

Public Law 101-185 authorizes the Institution to provide facilities for the Museum in three locations:

- a major museum building to be constructed on the Mall in Washington, D.C., on land reserved for Smithsonian use by Congress in 1975;

- an exhibition and education facility located in a portion of the Alexander Hamilton U.S. Custom House in lower Manhattan, to be known as the George Gustav Heye Center;

- a collections study, reference, and support facility on the same site as the Museum Support Center in Suitland, Maryland.

The Institution anticipates four major sources of funding for construction of these facilities: New York City, the State of New York, Federal appropriations, and private donations. The Institution received an appropriation in FY 1990 for programming and planning for all three facilities and for design of the Custom House conversion ($1,620,000). Since FY 1991, the Smithsonian received $11,893,000 to prepare the Custom House space, begin design of the Suitland building and the Mall museum, and complete planning and programming for the new Museum as a whole. The Smithsonian requests $6,200,000 for FY 1994 to continue development of the Suitland NMAI facility. A summary of current status and plans for FY 1994 construction activities follows.

- Mall Museum Building - The Institution will construct a new building on the National Mall near the foot of Capitol Hill, adjacent to the world's most frequently visited museums. The location will provide excellent exposure for Native American artifacts and related museum activities centered on Native American culture. The Institution expects that this facility will house permanent and changing exhibitions, reference and resource areas, an auditorium and conference center, integrated performance and retail areas, and space for other public programs.

The Institution projects the total cost of construction of the Mall building to be approximately $110 million, assuming a construction start in the late-1990s. The Smithsonian plans to fund two-thirds of the cost from Federal sources and expects that the balance will result from a national fund-raising campaign. Initial planning efforts defined the program requirements and refined the construction and equipment estimate as well as relevant logistical

and operating requirements and costs. The National Museum of the American Indian recently completed a series of consultations with Native American communities to define the programs of the new Museum and to generate ideas about the physical characteristics of the building. With $1,150,000 received in FY 1990 and FY 1991, the Institution is completing overall programming and planning for the new Museum and detailed planning for the Mall Museum building. The detailed planning incorporates considerations identified by Native American groups. The Institution is using $2,110,000 received in FY 1992 and FY 1993 to begin conceptual design of the Mall building. The Institution currently plans to use non-appropriated funds in FY 1994 to continue design. The Smithsonian expects the total design effort to take up to three years, with construction scheduled to begin in FY 1997. The current schedule calls for completion of the building in FY 2000 and its full public opening in the year 2001, with a partial opening in the year 2000.

• Cultural Resources Center ($6,200,000 design and site preparation) - The Institution plans to construct a facility adjacent to the Museum Support Center in Suitland, Maryland, to provide proper housing and study for the collections of the National Museum of the American Indian. The one million cultural artifacts in the Heye Collection are now densely warehoused and largely inaccessible in the Bronx storage facility in New York and the library, film and archival collections--another 250,000 items--are located elsewhere in the City. In addition to conservation, preservation, and collections-related research and training activities, the Suitland building will provide space for exhibits preparation and other nonpublic functions, thus freeing space in the future Mall Museum for public activities. The Institution currently expects the facility to cost approximately $50 million to design and complete, based on a construction start in 1994. The total cost exceeds the Institution's preliminary estimate of $44 million, which was based on gross square footage projections for a basic collections storage facility that warehoused artifacts. It was understood that more complete project costs could only be estimated after an extensive 18-month planning process involving a wide variety of Native and non-Native experts and technical advisors. Analysis of the particular housing and cultural use requirements of the collections made clear that a warehousing approach would be inadequate and that a more sophisticated arrangement of spaces would be required to meet the programmatic demands of NMAI's authorizing legislation. In addition, because of visitor projections of over six million for the Mall site, and the higher costs of building technical support spaces there, much of the technical support for the Mall museum was placed at Suitland in order to maximize use of the Mall space for public exhibition and activities. The Cultural Resources Center consequently will provide for care and access to the NMAI's collections, support of research and exhibition preparation, outreach programs and staff, training of Native Americans, and technical support for the Mall museum. While square footage has actually decreased from that originally projected, largely because of the use of compacted mobil storage equipment, costs have increased because of the more complex facility needed, a later starting date, and a larger project contingency estimate based on the developed program.

The Smithsonian used $300,000 appropriated in FY 1990 to complete planning for the building. This planning has identified a specific site and building configuration, details such as geotechnical data, and construction cost estimates and schedules. Design is now underway,

using $1,953,000 appropriated in FY 1991 and FY 1993. While the Institution originally projected that this amount would be sufficient to complete design of the building, the more complex building now planned will cost more to design. The Smithsonian plans to use the funds requested in FY 1994 to complete design and begin preparation of the site. The work will include relocation and demolition of existing structures, rough grading, and installation of utilities to prepare for beginning construction of the building in 1995. Completion of the building, scheduled for FY 1997, will provide a "home" for the Museum's collections and space where Native American visitors can interact with them in appropriate settings, create a focal point for tribal and international outreach programs, and establish vital support functions for the programs in the Mall Museum.

GENERAL CONSTRUCTION PLANNING ($200,000) - An essential part of effective program management is the ability to assess requirements and priorities and develop long-range plans. To maintain the appropriate balance between existing programs and opportunities for new or expanded activities, the Institution must continue to define the physical plant requirements for accomplishing its mission. Comprehensive long-range facilities planning provides Smithsonian management with basic information on the physical aspects of existing or proposed programmatic activities in sufficient detail to be able to make meaningful decisions about competing priorities.

The Institution initiated an improved long-range planning capability with funds received in FY 1989 through FY 1993. The comprehensive long-range planning program identifies major issues affecting each potential expansion project, including program needs, spatial ideas, operating logistics and costs, and preliminary construction cost estimates. A strong planning program will assist Smithsonian management in determining priorities from among projects essential to the continued success of the Institution's programs.

For FY 1994, the Smithsonian requests $200,000 to continue long-range capital improvement planning. The planning process will result in better-defined plans and better cost estimates for future-year construction projects prior to authorization and budget requests. The Institution is currently considering a variety of capital projects for facilities needed for existing programs and initiatives. Consistent annual resources will ensure continued feasibility studies, planning, and concepts upon which to base precise designs and more accurate cost estimates for construction of these and other emerging requirements. With these resources, the Institution will also establish operating and logistical support requirements, make required environmental assessments for critical capital improvement projects, and develop materials for review commission and Congressional approval.

MINOR CONSTRUCTION, ALTERATIONS, AND MODIFICATIONS ($4,000,000) - Projects in this category include:

- minor new construction (under $1 million in estimated cost);

- alterations and modifications to buildings to meet programmatic objectives in the areas of research, collections management, exhibitions, and public services.

For FY 1994, the Smithsonian requests $4,000,000 for the projects described below.

Air and Space Building ($250,000) - The National Air and Space Museum uses a public address system to announce events in the Museum to the visiting public and as a backup system to notify building occupants of emergency situations. The existing system is inaudible in parts of the building and can be operated only from the Security Office. The Smithsonian requests $250,000 to update the system to improve the clarity of voice announcements and allow the Museum to make prerecorded and live announcements from several locations during emergencies, special events, and routine operations.

American Art and Portrait Gallery Building ($250,000) - The Institution requests $250,000 in FY 1994 for reconfiguration of administrative office space within the American Art and Portrait Gallery Building. The Museum must modify the physical layout of space to accommodate significant changes in staff size and configuration. A 1990 reorganization of the Museum resulted in consolidation of 14 offices into nine offices. Sections of the consolidated offices remain in separate locations, however, impeding intraoffice communications. In addition, some office spaces are overcrowded, while others are underutilized. Physical consolidation of these new offices will streamline Museum operations and make more efficient use of the available space. The Institution requests $250,000 in FY 1994 to make modifications to office space to accommodate the new staff configuration. The work will include moving walls and doors, relocating electrical and HVAC service, and installing data network systems.

American History Building ($150,000) - For FY 1994, the Institution requests funding for two projects for the National Museum of American History (NMAH): renovation and installation of compact shelving in the Numismatics storage area, and space modifications in the basement.

The vault now housing the Museum's valuable National Numismatics Collections is filled to capacity. However, an adjacent security vault will be vacated by the move of the National Philatelic Collection to the National Postal Museum near Union Station. The Institution received $250,000 in FY 1993 to install compact shelving in this area and to connect the two vaults. The Institution requests an additional $50,000 in FY 1994 to relocate the collections into the new compact storage equipment. Funding of this project will alleviate crowded conditions and increase storage capacity for this important and valuable collection.

NMAH currently stores a number of collections items in the basement of its building. However, because the building is in the flood plain of Tiber Creek, the Museum is concerned about the vulnerability of these collections to potential flood water damage. Despite U.S. Army Corps of Engineers and Smithsonian plans to improve flood control provisions in the area, the Museum believes that the additional risk of storing collections below the building's flood level is unacceptable. The Museum plans to relocate the majority of collections from the basement to

leased space in Newington, Virginia, the Museum Support Center in Suitland, Maryland, and other areas of the building once the Major Capital Renewal project is completed on the upper floors. The Museum will then use the basement space to consolidate exhibits and registrarial functions now scattered throughout the building. The Institution requests $100,000 in FY 1994 to begin relocation of collections from the basement. The Museum will request funding in future years to modify the basement space to accommodate the new staff functions. These modifications will be implemented concurrently with the Major Capital Renewal project in the basement. Funding of this project will eliminate an unnecessary risk of damage to collections and make more efficient use of the basement space for staff activities.

American Indian Museum, Research Branch ($75,000) - The Research Branch Building, in the Bronx, New York City, currently has a small paved parking area within the perimeter fence for use by staff and visiting researchers. The proposed increase in facility staff needs to be accommodated by an increase in parking spaces. Staff parking outside the fence is inappropriate because of the high incidence of automobile theft and damage in the surrounding neighborhood. The Institution requests $75,000 to pave a graveled area within the perimeter fence. In addition to expansion of parking, paving of the lot will improve drainage and reduce future maintenance costs.

Anacostia Museum ($400,000) - The Smithsonian plans to construct a mezzanine above the education offices to accommodate expanding staff, collections study and storage, and museum programs. The work will involve architectural, structural, electrical, and mechanical alterations. The project will also include installation of an elevator to provide access for persons with disabilities to the new mezzanine as well as to other levels of the building. The Institution received $200,000 in FY 1993 for construction of a collections storage addition, but the Museum has determined that incorporating its collections storage requirements into the mezzanine space will be more efficient and secure. The FY 1993 funds will therefore be used to initiate the mezzanine project. For FY 1994, $400,000 is requested to continue this renovation. A future-year request will complete the project. Funding of this request will provide needed collections study and storage space, room for staff expansion, and disabled access throughout the building.

Arts and Industries Building ($250,000) - The Arts and Industries Building (A&I) houses four major exhibition halls. It also houses essential program and administrative activities on the Mall, including some requiring public access, such as the Offices of Public Affairs, Museum Programs, and Elementary and Secondary Education. Other central support organizations located in this building include the offices of Protection Services, Information Resource Management, and Planning and Budget. There is an immediate and continuing need to renovate space to offer more functional work areas for current administrative and program requirements. The Institution has used funds provided through FY 1992 and will use similar funding appropriated in FY 1993 to continue renovation of space and acquisition of modular furniture to increase future flexibility. For FY 1994, the Smithsonian requests $250,000 to modify additional space in the building. Funding for this ongoing project will support the Institution's efforts to use staff space in the Arts and Industries Building efficiently.

Garber Facility ($440,000) - The Smithsonian requests funding in FY 1994 for two projects to improve storage conditions at the Paul E. Garber Facility: renovation of Building 17, and construction of temporary storage space for Air and Space collections.

Building 17 at the Paul E. Garber Facility in Suitland, Maryland, provides critical collection storage for the National Museum of American History. The artifacts stored in the building do not require precisely controlled climatic conditions. The building, however, needs some modifications to ensure secure storage in a relatively stable environment. Moreover, the building's asbestos insulation has contaminated the objects stored there. The artifacts must be decontaminated and the asbestos removed from the building. The Institution used $325,000 provided in FY 1990 for planning and contract document preparation. The Institution will use $150,000 appropriated in FY 1993 to construct a decontamination chamber outside the building, where Museum staff will clean asbestos from the artifacts. Funds requested in the Repair and Restoration of Buildings account will relocate the artifacts and remove the asbestos from the building itself. The Institution requests $400,000 in FY 1994 to begin the modifications. The proposed work involves repairing and insulating walls and roof, upgrading electrical wiring and fixtures, and installing new space heaters and smoke detection and sprinkler systems. Funding of this project will improve the storage conditions of the Museum's collections and allow access by staff and scholars to artifacts now contaminated by asbestos.

Over the next several years, the Institution will complete a number of comprehensive repairs to buildings at the Paul E. Garber Facility. These repairs are essential to correct accessibility and life safety deficiencies and to ensure continued operation of the buildings over the next ten years of expected use by the Institution. Some of these repairs, however, cannot be accomplished while the artifacts are in the buildings and the Institution does not have temporary space for them. The Smithsonian requests $40,000 in FY 1994 to design a 5,000-square-foot pre-engineered building to serve as temporary storage space. The building will include heating, ventilation, air conditioning, and lighting as well as appropriate security and fire protection systems. Funding of this project will allow necessary repairs to existing buildings to go forward.

Smithsonian Astrophysical Observatory ($20,000) - The Institution requests $20,000 in FY 1994 to provide funding for necessary but unanticipated modification projects at all Smithsonian Astrophysical Observatory (SAO) locations. Examples of these projects are local engineering design assistance for small programmatic renovations, laboratory space conditioning, upgrading of voice and data transmission systems, and material handling and storage modifications at telescope facilities. With funding in this category, SAO can continue to provide appropriate space for its research programs.

Smithsonian Environmental Research Center ($250,000) - SERC presently conducts a series of very popular and informative educational activities on the shoreline of the Rhode River. Currently, only an old house trailer is available to provide public rest rooms, offices for docents, and storage for program materials. SERC plans to use the $250,000 requested in FY 1994 and a private donation in the same amount to construct a 2,800-square-foot building to

receive, orient, and support visitors to ongoing and developing public programs. Funding of the request will improve SERC's ability to explain to the public the important scientific and conservation issues surrounding the Chesapeake Bay region.

Smithsonian Institution Building ($100,000) - The Smithsonian Institution Building houses the Office of the Secretary and other senior management of the Institution. Recent and continuing changes in staff organization require minor modifications to the building to provide the necessary support facilities for staff activities. The Institution began alterations to staff offices with funds received in FY 1991 ($100,000). Along with funds appropriated in FY 1992 ($50,000) and in FY 1993 ($70,000), the Institution will use the funds requested for FY 1994 ($100,000) to continue this work, thereby ensuring the efficient operation of these key offices.

Smithsonian Institution Libraries ($500,000) - The Smithsonian Institution Libraries (SIL) provides a vital resource for the research and public programs of the Institution. SIL's holdings include an extensive collection of rare books in the natural sciences and related areas. The present rare book storage area in the Arts and Industries Building is completely filled and awkward to service due to its location away from research users. The Institution requests $500,000 in FY 1994 to renovate space in the Natural History Building made available by construction of the East Court Building to house the rare book collection. Work includes interior modifications and design, fabrication and installation of compact shelving, and purchase of special library furnishings. This new facility will protect rare books valued at several million dollars and make them more accessible to scholars.

Smithsonian Tropical Research Institute ($850,000) - The final major project outlined in STRI's Facilities Master Plan is construction of a new maintenance facility at the Tivoli site in Panama City. With the construction of new facilities, STRI has more than doubled its previous square footage. A new, modern maintenance facility will allow adequate levels of maintenance support for STRI's physical plant and its fleet of vehicles and boats. The current maintenance shop, which serves all STRI sites throughout the Isthmus, is located on the ground floor of Building 359 on Naos Island, Fort Amador. Marine research laboratories and offices are located directly above the shop. High noise levels, vibration, dust, and traffic associated with normal shop operations are disruptive to sensitive experiments. Extra loads on the electrical power in the shop have occasionally caused computer malfunctions in the laboratories upstairs. The distance from STRI's main center of operations, at Tivoli, and from commercial suppliers is also a significant obstacle to efficiency. STRI must transport shop personnel, supplies, and materials to the site daily. The remote location delays response to emergency situations, especially during nonduty hours, as public transportation is not available. The Institution requests $850,000 in FY 1994 to construct a building to house the maintenance facilities at a site near the newly completed Tupper Laboratory and Conference Center. Because of its central location and proximity to suppliers, the Tivoli site is more appropriate for this operation than the current shop at Naos Island.

STRI is the world's premier center for basic research in tropical biology. Since space adjacent to the ocean is limited, the space in Building 359 at Naos, now occupied by the

maintenance shop, is needed as laboratory space for the expanded Marine Sciences Research Program, including the recently approved program in molecular biology. The Institution will request future funds to construct a mezzanine and convert the ground floor into laboratories and offices in order to allow important marine research programs to continue.

Alterations and Modifications Planning and Design ($465,000) - For FY 1994, the Smithsonian requests $465,000 to plan and design future Minor Construction, Alterations, and Modifications projects. As in other categories of construction activities, such as Major Construction and Repair and Restoration of Buildings, planning is essential for an effective facilities management program. The requested resources will allow the Institution to assess future requirements for changes to existing facilities to accommodate programmatic growth and changes in program direction. Planning studies will include evaluation of space requirements and engineering analyses. Staff also will prepare concept designs for buildings and sites and estimate total project costs. Careful research and early design of future needs will result in more accurate cost estimates in advance of budget requests and more timely obligation of construction funds once received.

SMITHSONIAN INSTITUTION
Annual Visitation
FY 1988 – FY 1992

	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992
MALL					
SI Building /1	228,409	-	1,507,351	1,384,881	1,644,504
Arts & Industries Building	1,458,532	1,324,126	994,162	969,184	1,142,187
National Museum of Natural History	7,365,665	6,453,481	6,162,953	6,207,225	7,164,433
National Air and Space Museum	9,237,847	8,397,694	7,542,401	7,694,063	8,580,238
Freer Gallery of Art /2	309,367	-	-	-	-
Sackler Gallery /3	547,874	445,087	405,913	283,901	311,797
National Museum of African Art /3	643,460	418,022	431,859	396,972	373,961
Ripley Center /3	518,763	378,480	251,908	346,306	317,097
National Museum of American History	6,359,369	5,527,747	5,704,389	5,513,792	5,742,674
Hirshhorn Museum and Sculpture Garden	1,278,052	1,048,103	937,060	883,828	872,486
OFF-THE-MALL					
American Art & Portrait Gallery	349,255	408,684	515,723	651,686	435,577
Renwick Gallery	143,020	123,393	315,849	107,101	121,359
Anacostia Museum /4	37,682	28,814	43,419	33,239	52,002
Cooper-Hewitt Museum	140,839	128,474	197,012	93,956	87,539
Museum of the American Indian /5	-	-	7,994	36,589	40,969
National Zoological Park /6	3,100,000	3,200,000	3,400,000	3,050,000	3,100,000
GRAND TOTAL	31,718,134	27,882,105	28,417,993	27,652,723	29,986,823

1/ Closed to the public January 1988. Reopened to the public November 1989.
2/ Closed to the public September 1988.
3/ Opened to the public September 28, 1987.
4/ Closed to the public January to April 1987. Reopened May 1987 at new location.
5/ FY 1990 reporting period was from July to September, 1990.
6/ Number of visitors is an estimate based on a sampling system.

Smithsonian Institution
Museum Programs and Related Research
(Special Foreign Currency Program)

PROGRAM OF GRANTS FOR RESEARCH

The Smithsonian Institution, through its Special Foreign Currency Program, makes grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence.

Excess currencies appropriations directly funded the Program through FY 1986. Outlays from the budget authority appropriated through FY 1986, including the Forward-Funded Reserve for the American Institute of Indian Studies, will continue through the 1990s. In addition, since FY 1986 the Smithsonian has received allocations of U.S.-owned Indian rupees from the funds appropriated to the Department of State in FY 1985 for the establishment of the U.S.-India Fund for Educational, Cultural, and Scientific Cooperation.

For the past 26 years, the Special Foreign Currency Program has been a major source of support for research carried out by United States institutions in those countries for which excess foreign currencies are available. The full responsibility for the design, execution, and publication of research results rests with a scholar working within the program of a United States institution. Smithsonian foreign currency grants strengthen the fundamental research and training activities of collaborating institutions abroad, since most projects directly involve host country institutions and scholars. Enduring professional ties, which result from joint efforts and scholarly exchange, contribute to the strongest form of United States cultural relations with other nations. These ties also contribute to the global integration of research data in the sciences. As a result of this interaction, the gap between industrial and developing nations' scholars has narrowed. Moreover, research sponsored by the Program aims, in part, at improving understanding of the environment and the management and conservation of scarce natural and cultural resources that are threatened by the rapid growth of world population and technological development.

In FY 1992, ongoing research supported by these grants included the following projects of special interest:

- archeological and geomorphic studies at Harappa in Pakistan that are enhanced with studies of present-day traditional bead makers in Khambhat, India;

- the development of analytic models for the propagation of radio jets to determine the nature of giant radio galaxies;

- documentation of Mughal gardens of Pakistan that provides not only heretofore unknown scholarly information but lays the foundation for the authentic restoration of these important sites;

- studies of the beliefs and rituals of the Islamic celebration of Shia Muharram that use art and architecture for interpretation.

Further, with emphasis on the exchange of information through small workshops, symposia, and field conferences, the Program encourages international research in specialized areas. In FY 1992, for example, U.S. scholars received support for participation in exchanges on the subjects of Rajasthani studies, solar radio astronomy, and the history of science and information technology.

FORWARD-FUNDED RESERVE FOR THE AMERICAN INSTITUTE OF INDIAN STUDIES

Since 1967, the Smithsonian has provided annual funding through the Special Foreign Currency Program to the American Institute of Indian Studies (AIIS) for its fellowships, research, symposia, and publications programs, as well as its administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for the last 25 years because of their significant contributions to scholarship and science without regard for national boundaries and because of their special service to American scholars.

With Special Foreign Currency Program funding received from FY 1980 through FY 1985, the Smithsonian established a forward-funded reserve of $7,170,000 equivalent in rupees. This reserve enabled the AIIS to sustain its programs after the removal of India from the excess currency list in 1985. Since FY 1986, AIIS, with oversight from the Smithsonian, has drawn upon the funds from this reserve for its fellowship program and administrative costs in India. The Institution continues to examine annual proposals through its peer review system before releasing funds from the reserve account to AIIS. The reserve should support AIIS programs through the 1990s in conjunction with continued support from the U.S.-India Fund. In 1990, the U.S. Congress authorized the deposit of the reserve in interest-bearing (rupee) accounts, a plan that will help to continue the viability of the fund for many years.

U.S.-INDIA FUND FOR EDUCATIONAL, CULTURAL, AND SCIENTIFIC COOPERATION

In FY 1985, Congress appropriated $100 million equivalent in U.S.-owned Indian rupees to the Department of State to establish the U.S.-India Fund for Educational, Cultural, and Scientific Cooperation. Since FY 1986, the Smithsonian has received allocations from this fund to continue programs in India similar to those administered under the Special Foreign Currency Program, which would otherwise have ended when India lost excess currency status in 1985.

The Institution has received a total of $14 million from FY 1986 through FY 1993 and expects to receive $1.4 million in FY 1994 through the U.S.-India Fund. Based on current usage, the fund will be totally liquidated by 1997.

U.S.-INDIA FUND SUMMARY
(millions)

Fiscal Year	Funding Received	Funding Anticipated
1986	$1.40	--
1987	1.50	--
1988	1.80	--
1989	1.75	--
1990	2.50	--
1991	1.85	--
1992	1.60	--
1993	1.60	--
1994	-	$1.40
TOTAL	$14.00	$1.40

April 1993

Federal Expenditures for Consulting Services
(All Charged to S&E Funds)

In accordance with 31 U.S.C. 1114(A) and OMB Circular A-120 the following consulting services are identified for FY 1992.

FY 1992	Amount	Project
Personnel Appointments		None reportable
Contracts	$3,000	Advisory service to catalog Duke Ellington Business Records and Sheet Music and abstract oral histories in three phases.
	$24,000	Provide technical, professional, non-personal services to advise and assist the directors of the Duke Ellington Program for processing history and records.
	$2,400	Advisory services on correct methods to disassemble sculpture.
	$7,700	Consultant and coordinator services for the Duke Ellington Youth Project.
	$1,000	Coordinator of inter-school dance component of Duke Ellington Youth festival.
	$3,000	Advisory service for curatorial support of fighter plane restoration.

SMITHSONIAN INSTITUTION

Appropriation: Salaries and Expenses

Appropriation language and citations:

20 U.S.C. 41 provides for the establishment and operation of the Smithsonian Institution "...for the increase and diffusion of knowledge among men..." This section delineates the full scope of Smithsonian authority. Examples of secondary authorities within this primary authority may be cited as follows:

1. For necessary expenses of the Smithsonian Institution, as authorized by law, including research in the fields of art, science, and history;

20 U.S.C. 50, 53a, 69, 75b, 76bb, 77a, 78, 80a, 80m provide that (1) "...all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens...shall be so arranged and classified...as best to facilitate the examination and study of them..." (2) "Appropriations are authorized for...the making of solar observations at high altitudes..." (3) "The Secretary of the Smithsonian Institution is hereby authorized...to continue independently or in cooperation anthropological researches among the American Indians and the natives of lands under the jurisdiction or protection of the United States..." (4) "The Gallery shall function as a free public museum for the exhibition and study of portraiture and statuary depicting men and women who have made significant contributions to the history, development, and culture of the people of the United States and of the artists who created such portraiture and statuary." (5) "The Joseph H. Hirshhorn Museum and Sculpture Garden...shall be used for the storage, exhibition, and study of works of art..." (6) "The national air and space museum shall...provide educational material for the historical study of aviation and space flight." (7) "The Secretary of the Smithsonian Institution is authorized to cooperate with any State, educational institution, or scientific organization in the United States for continuing paleontological investigations..." (8) "It shall be equipped with a study center for scholarly research into the meaning of war, its effect on civilization, and the role of the Armed Forces..." (9) "...the Board may...conduct programs of research and education (in the Museum of African Art)..."

2. development, preservation, and documentation of the National Collections;

20 U.S.C. 50, 50a, 59, 69, 75e, 76c, 76cc(a), 77a, 80a, 80m, 81 provide that (1) "...all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens...shall be delivered to such persons as may be authorized by the Board of Regents to receive them, and shall be so arranged and classified...as best to facilitate the examination and study of them..." (2) "The Smithsonian Institution is authorized to include in its estimates of appropriations such sums as may be needful for the preservation and maintenance of the John

Gellatly art collection." (3) "All collections of rocks, minerals, soils, fossils, and objects of natural history, archaeology, and ethnology...when no longer needed for investigations in progress shall be deposited in the National Museum." (4) "The Secretary of the Smithsonian Institution is hereby authorized...to continue independently or in cooperation...the excavation and preservation of archaeological remains." (5) "...the Board may - (1) purchase, accept, borrow, or otherwise acquire portraiture, statuary, and other items for preservation, exhibition, or study." (6) "...the Regents are authorized...to acquire (by purchase or otherwise) and sell contemporary works of art or copies thereof..." (7) "There is established in the Smithsonian Institution a Board of Trustees...which shall have the sole authority (i) to purchase or otherwise acquire...works of art for the Joseph H. Hirshhorn Museum and Sculpture Garden..." (8) "The national air and space museum shall...collect, preserve, and display aeronautical and space flight equipment of historical interest and significance..." (9) "...the Smithsonian Institution shall collect, preserve, and exhibit military objects of historical interest and significance." (10) "The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized to transfer to it any living specimens, whether of animals or plants, in their charge, to accept gifts for the park...to make exchanges of specimens..." (11) "...the Board may purchase, accept, borrow or otherwise acquire additional works of art or any other real or personal property for the Museum (of African Art); preserve, maintain, restore...or otherwise hold any property of whatsoever nature acquired..."

3. presentation of public exhibits and performances;

20 U.S.C. 75b, 76c, 76bb, 77a, 80a, 80m provide that (1) "The Gallery shall function as a free public museum for the exhibition and study of portraiture and statuary..." (2) "In order to encourage the development of contemporary art and to effect the widest distribution and cultivation in matters of such art, the Regents are authorized to...conduct exhibitions..." (3) "The Joseph H. Hirshhorn Museum and Sculpture Garden...shall be used for the storage, exhibition, and study of works of art..." (4) "The national air and space museum shall...collect, preserve, and display aeronautical and space flight equipment of historical interest and significance..." (5) "...the Smithsonian Institution shall collect, preserve, and exhibit military objects of historical interest and significance." (6) "...the Board may...display...any property of whatsoever nature acquired (for the Museum of African Art)..."

4. collection, preparation, dissemination, and exchange of information and publications;

20 U.S.C. 53a provides that "Appropriations are authorized for the...preparation of manuscripts, drawings, and illustrations for publication."

44 U.S.C. 1719 provides that "For the purpose of more fully carrying into effect the convention concluded at Brussels on March 15, 1886, and proclaimed by the President of the United States on January 15, 1889, there shall be supplied to the Library of Congress not to exceed one hundred and twenty-five copies each of all Government publications, including the daily and bound copies of the Congressional Record, for distribution, through the Smithsonian Institution, to foreign governments which agree

to send to the United States similar publications of their governments for delivery to the Library of Congress."

5. conduct of education, training, and museum assistance programs;

20 U.S.C. 65a provides "The Director of the National Museum under the direction of the Secretary of the Smithsonian Institution shall - (1) cooperate with museums and their professional organizations in a continuing study of museum problems and opportunities, both in the United States and abroad; (2) prepare and carry out programs by grant, contract, or directly for training career employees in museum practices...(3) prepare and distribute significant museum publications; (4) perform research on, and otherwise contribute to, the development of museum techniques..."

20 U.S.C. 77a provides that "The national air and space museum shall...provide educational material for the historical study of aviation and space flight."

20 U.S.C. 79a provides that "The purpose of setting aside such an area [Barro Colorado Island] is to preserve and conserve its natural features...thus providing a place where duly qualified students can make observations and scientific investigations for increase of knowledge, under such conditions and regulations as may be prescribed by the Smithsonian Institution."

20 U.S.C. 79e as amended by P.L. 96-89 and P.L. 98-57 provides that "There are authorized to be appropriated annually...such sums as are necessary for the administration of sections 79-79e of this title and for the maintenance of laboratory or other facilities..."

The Panama Canal Treaty and ancillary agreements vest in the Smithsonian Tropical Research Institute responsibility to serve as custodian of the Barro Colorado Nature Monument. The Panama Canal Act of 1979, P.L. 96-70, implements the provisions of the Panama Canal Treaty.

20 U.S.C. 80m provides that "...the Board may...conduct programs of research and education (in the Museum of African Art)..."

6. maintenance, alteration, operation, lease (for terms not to exceed thirty years), and protection of buildings, facilities, and approaches;

20 U.S.C. 53a, 76g, 76ee, 79b, 80m, 81 provide that (1) "Appropriations are authorized for the maintenance of the Astrophysical Observatory and...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere..." (2) "There are authorized to be appropriated annually such sums as may be necessary to maintain and administer the Gallery..." (3) "There is authorized to be appropriated...such additional sums as may be necessary for the

maintenance and operation of such museum and sculpture garden." (4) "The Smithsonian Institution shall...be responsible for the construction and maintenance of laboratory and other facilities on the area provided for the use of students authorized to carry on studies within the confines of the area..." (5) "...the Board may...preserve, maintain...any property of whatsoever nature acquired (for the Museum of African Art)..." (6) "The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized...to administer and improve the said Zoological Park for the advancement of science and the instruction and recreation of the people." Public Law 101-512 making appropriations for the Department of the Interior and Related Agencies for the fiscal year 1991 extended the maximum term from ten years to thirty years.

7. not to exceed $_____for services as authorized by 5 U.S.C. 3109;

5 U.S.C. 3109 provides that "When authorized by an appropriation or other statute, the head of an agency may procure by contract the temporary (not in excess of 1 year) or intermittent services of experts or consultants or an organization thereof, including stenographic reporting services."

8. up to 5 replacement passenger vehicles;

31 U.S.C. 638a provides that "Unless specifically authorized by the appropriation concerned or other law, no appropriation shall be expended to purchase or hire passenger motor vehicles for any branch of the Government other than those for..."

9. purchase, rental, repair, and cleaning of uniforms for employees;

5 U.S.C. 5901 provides that "There is authorized to be appropriated annually to each agency of the Government of the United States...on a showing of necessity or desirability, an amount not to exceed $125 multiplied by the number of employees of the agency who are required by regulation or statute to wear a prescribed uniform in the performance of official duties and who are not being furnished with the uniform."

40 U.S.C. 193t provides that "The special police provided for in section 193n of this title [Smithsonian Institution]...may be furnished, without charge, with uniforms and such other equipment as may be necessary for the proper performance of their duties..."

10. of which not to exceed $_____ for the instrumentation program, collections acquisition, Museum Support Center equipment and move, exhibition reinstallation, the National Museum of the American Indian, and the repatriation of skeletal remains program shall remain available until expended;

Wording added by the Congress in (1) Public Law 100-446 making appropriations for the Department of the Interior and related agencies for the fiscal year 1989 and (2) Public Law 101-512 making appropriations for the Department of the Interior and Related Agencies for the fiscal year 1991 to permit the Institution to establish no-year funding within the Salaries and Expenses account for (1) the development of major scientific instrumentation and (2) purchases for museum collections; the costs of purchasing collections storage equipment and the preparation of objects and the move of collections to the Museum Support Center; the design, production, and reinstallation of museum exhibitions; the operating costs associated with the new National Museum of the American Indian; and the repatriation of skeletal remains program.

31 U.S.C. 718 provides "No specific or indefinite appropriation made subsequent to August 24, 1912, in any regular annual appropriation Act shall be construed to be permanent or available continuously without reference to a fiscal year unless it belongs to one of the following...or unless it is made in terms expressly providing that it shall continue available beyond the fiscal year for which the appropriation Act in which it is contained makes provision."

11. and, including such funds as may be necessary to support American overseas research centers and a total of $_____ for the Council of American Overseas Research Centers:

Wording added by the Congress in Public Law 99-190 making appropriations for the Department of Interior and Related Agencies in 1986. Public Law 100-446 making appropriations for the Department of the Interior and Related Agencies for the fiscal year 1989 modified reference to add specific dollar sum to be provided to the Council of American Overseas Research Centers.

12. Provided, That funds appropriated herein are available for advance payments to independent contractors performing research services or participating in official Smithsonian presentations.

31 U.S.C. 529 provides that "No advance of public money shall be made in any case unless authorized by the appropriation concerned or other law."

13. Provided further, That none of the funds appropriated herein shall be made available for acquisition of land at the Smithsonian Environmental Research Center before the date of the enactment of an Act authorizing the use of funds for that purpose.

Wording added by Congress in Public Law 102-154 making appropriations for the Department of the Interior and Related Agencies for the fiscal year 1992 to prohibit the availability of funds for land purchase at the Smithsonian Environmental Research Center in Edgewater, Maryland, until authorization is enacted.

SMITHSONIAN INSTITUTION

Appropriation: Construction and Improvements, National Zoological Park

Appropriation language and citations:

1. For necessary expenses of planning, construction, remodeling, and equipping of buildings and facilities at the National Zoological Park,

   20 U.S.C. 81 provides that "The National Zoological Park is placed under the direction of the Regents of the Smithsonian Institution, who are authorized...to administer and improve the said Zoological Park for the advancement of science and the instruction and recreation of the people."

2. by contract or otherwise,

   Wording for clarification only.

3. to remain available until expended.

   31 U.S.C. 718 provides "No specific or indefinite appropriation made subsequent to August 24, 1912, in any regular annual appropriation Act shall be construed to be permanent or available continuously without reference to a fiscal year unless it belongs to one of the following...or unless it is made in terms expressly providing that it shall continue available beyond the fiscal year for which the appropriation Act in which it is contained makes provision."

SMITHSONIAN INSTITUTION

Appropriation: Repair and Restoration of Buildings

Appropriation language and citations:

1. For necessary expenses of repair and restoration of buildings owned or occupied by the Smithsonian Institution, by contract or otherwise, as authorized by section 2 of the Act of August 22, 1949 (63 Stat. 623),

   20 U.S.C. 53a provides that "Appropriations are authorized...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere..."

2. including not to exceed $_____for services as authorized by 5 U.S.C. 3109,

   5 U.S.C. 3109 provides that "When authorized by an appropriation or other statute, the head of an agency may procure by contract the temporary (not in excess of 1 year) or intermittent services of experts or consultants or an organization thereof, including stenographic reporting services."

3. to remain available until expended:

   31 U.S.C. 718 provides "No specific or indefinite appropriation made subsequent to August 24, 1912, in any regular annual appropriation Act shall be construed to be permanent or available continuously without reference to a fiscal year unless it belongs to one of the following...or unless it is made in terms expressly providing that it shall continue available beyond the fiscal year for which the appropriation Act in which it is contained makes provision."

4. Provided, That contracts awarded for environmental systems, protection systems, and exterior repair or restoration of buildings of the Smithsonian Institution may be negotiated with selected contractors and awarded on the basis of contractor qualifications as well as price.

   Wording added to allow for negotiations with the most competent firms for restoration and renovation work where it can be certified that such work must be performed to meet the special needs of historic structures, the protection of collections, or public safety.

SMITHSONIAN INSTITUTION

Appropriation: Construction

Appropriation language and citations:

1. For necessary expenses for construction,

   20 U.S.C. 53a provides that "Appropriations are authorized...for repairs and alterations of buildings and grounds occupied by the Smithsonian Institution in the District of Columbia and elsewhere..."

2. to remain available until expended:

   31 U.S.C. 718 provides "No specific or indefinite appropriation made subsequent to August 24, 1912, in any regular annual appropriation Act shall be construed to be permanent or available continuously without reference to a fiscal year unless it belongs to one of the following...or unless it is made in terms expressly providing that it shall continue available beyond the fiscal year for which the appropriation Act in which it is contained makes provision."

FY 1993 APPROPRIATION

(Dollars in Thousands) UNIT	FY 1993 CONGRESSIONAL APPROPRIATION	DISTRIBUTION \1 OF PAY & INFLATION REDUCTIONS	DISTRIBUTION \2 OF INTERIOR REDUCTION (0.85%)	REORGANIZATIONS AND PERMANENT REPROGRAMMING	SMITHSONIAN \3 INSTITUTION RESTRUCTURING PLAN	REVISED FY 1993 APPROPRIATION
SCIENCES						
Assistant Secretary for the Sciences	1,718	(36)	(15)	3 \4	(148)	1,522
Smithsonian Astrophysical Observatory	14,262	(298)	(121)	0	(135)	13,708
Smithsonian Tropical Research Institute	7,541	(156)	(64)	0	178	7,499
Smithsonian Environmental Research Center	2,644	(49)	(22)	30 \5	(181)	2,422
National Zoological Park	18,335	(371)	(151)	0	48	17,861
Smithsonian Institution Archives	921	(11)	(8)	0	17	919
Smithsonian Institution Libraries	6,400	(110)	(54)	0	319	6,555
International Environmental Science Program	971	(19)	(8)	0	(184)	760
Major Scientific Instrumentation	8,039	0	(68)	0	(32)	7,939
National Museum of Natural History	36,250	(599)	(298)	0	219	35,572
Conservation Analytical Laboratory	2,969	(65)	(25)	0	(196)	2,683
Museum Support Center	5,843	(31)	(50)	0	(526)	5,236
Subtotal	105,893	(1,745)	(884)	33	(621)	102,676
ARTS AND HUMANITIES						
Assistant Secretary for the Arts and Humanities	2,872	(71)	(24)	60 \6	(302)	2,535
National Air and Space Museum	12,262	(186)	(104)	0	(241)	11,731
National Museum of American History	19,569	(301)	(161)	(114) \7	(509)	18,484
National Museum of the American Indian	12,678	(205)	(108)	(127) \8	(816)	11,422
National Museum of American Art	7,751	(146)	(66)	0	151	7,690
National Portrait Gallery	5,025	(93)	(43)	0	107	4,996
Hirshhorn Museum and Sculpture Garden	4,121	(71)	(35)	0	79	4,094
Arthur M. Sackler Gallery/Freer Gallery of Art	5,248	(108)	(45)	0	91	5,186
Archives of American Art	1,352	(29)	(11)	0	34	1,346
Cooper-Hewitt Museum	2,239	(40)	(19)	0	82	2,262
National Museum of African Art	4,084	(83)	(35)	0	(15)	3,951
Anacostia Museum	1,221	(20)	(10)	(61) \9	22	1,152
Office of Exhibits Central	2,250	(32)	(19)	0	46	2,245
Smithsonian Institution Traveling Exhibition Service	2,558	(41)	(22)	0	49	2,544
Subtotal	83,230	(1,426)	(702)	(242)	(1,222)	79,638

FY 1993 APPROPRIATION

(Dollars in Thousands) UNIT	FY 1993 CONGRESSIONAL APPROPRIATION	DISTRIBUTION \1 OF PAY & INFLATION REDUCTIONS	DISTRIBUTION \2 OF INTERIOR REDUCTION (0.85%)	REORGANIZATIONS AND PERMANENT REPROGRAMMING	SMITHSONIAN \3 INSTITUTION RESTRUCTURING PLAN	REVISED FY 1993 APPROPRIATION
PUBLIC SERVICE AND EXTERNAL AFFAIRS						
Assistant Secretary for Education and Public Service	450	(27)	(4)	0	(9)	410
Center for Folklife Programs and Cultural Studies	1,190	(24)	(10)	130 \10	(31)	1,255
Academic and Educational Programs	981	(14)	(8)	(196) \11	14	777
Assistant Secretary for External Affairs	782	(23)	(7)	70 \12	(108)	714
Smithsonian Institution Press	1,658	(30)	(14)	0	(114)	1,500
Subtotal	5,061	(118)	(43)	4	(248)	4,656
INTERNATIONAL CENTER	965	(18)	(8)	(9) \13	(108)	822
ADMINISTRATION	28,576	(553)	(239)	135 \14	(1,091)	26,828
FACILITIES SERVICES						
Office of Design and Construction	3,504	(60)	(30)	(13) \15	76	3,477
Office of Protection Services	29,708	(510)	(248)	50 \16	101	29,101
Office of Plant Services	45,937	(350)	(380)	42 \17	777	46,026
Subtotal	79,149	(920)	(658)	79	954	78,604
SI-WIDE REDUCTIONS						
FY 1993 Pay Raise Absorption	(2,880)	2,880	0	0	0	0
Senior Pay Absorption	(400)	400	0	0	0	0
Inflation Allowance	(1,500)	1,500	0	0	0	0
Interior Approp. Act Reduction (0.85%)	(2,534)	0	2,534	0	0	0
Subtotal	(7,314)	4,780	2,534	0	0	0
RENEWAL/ACQUISITION PROGRAM						
Research Equipment	0	0	0	0	1,186	1,186
Information Resources	0	0	0	0	1,150	1,150
GRAND TOTAL	295,560	0	0	0	0	295,560

Footnotes for FY 1993 APPROPRIATION:

\1 Distribution of FY 1993 Congressional reductions spread by line-item: FY 1993 Legislated Pay Raise ($2.88 million); Senior Executive Gradeless Pay System ($400,000); and Inflation ($1.5 million).

\2 Distribution of the across-the-board reduction of 0.85% included in Section 324 of the FY 1993 Interior Appropriations Act (Public Law 102-381).

\3 Reflects reprogramming, approved by Congress, resulting from the Institution's FY 1993 Restructuring Plan.

\4 Transfer of one position to the Smithsonian Environmental Research Center and transfer of funds from Interdisciplinary Studies.

\5 Transfer of one position from the Assistant Secretary for the Sciences.

\6 Transfer of one position from the Assistant Secretary for Finance and Administration and one position from Interdisciplinary Studies.

\7 Transfer of funds to central rent and utilities accounts for costs of off-site storage space.

\8 Transfer of three positions to the Office of Protection Services for NMAI security costs and funds to the Office of Design and Construction for NMAI design and construction management costs.

\9 Transfer of one position to the International Center.

\10 Transfer of two positions from Interdisciplinary Studies.

\11 Transfer of one position to the Assistant Secretary for the Arts and Humanities, two positions to the Center for Folklife Programs and Cultural Studies, funds to the Assistant Secretary for the Sciences, and funds to Administration.

\12 Transfer of one position from the International Center.

\13 Transfer of one position from the Anacostia Museum and one position to the Assistant Secretary for External Affairs.

\14 Transfer of one position and funds from the Office of Plant Services, and funds from the offices of Design and Construction, Protection Services, and Interdisciplinary Studies; and the transfer of one position to Assistant Secretary for the Arts and Humanities.

\15 Transfer of funds from the National Museum of the American Indian for NMAI design and construction management costs, and transfer of funds to Administration.

\16 Transfer of three positions from the National Museum of the American Indian for NMAI security costs, and transfer of funds to Administration.

\17 Transfer of one position and funds to Administration and transfer of funds from the National Museum of American History for rent and utilities costs of off-site storage space.

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01680 3199